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CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF CITY PLANNING

DRAFT ENVIRONMENTAL IMPACT REPORT

THE RINCON HILL PLAN

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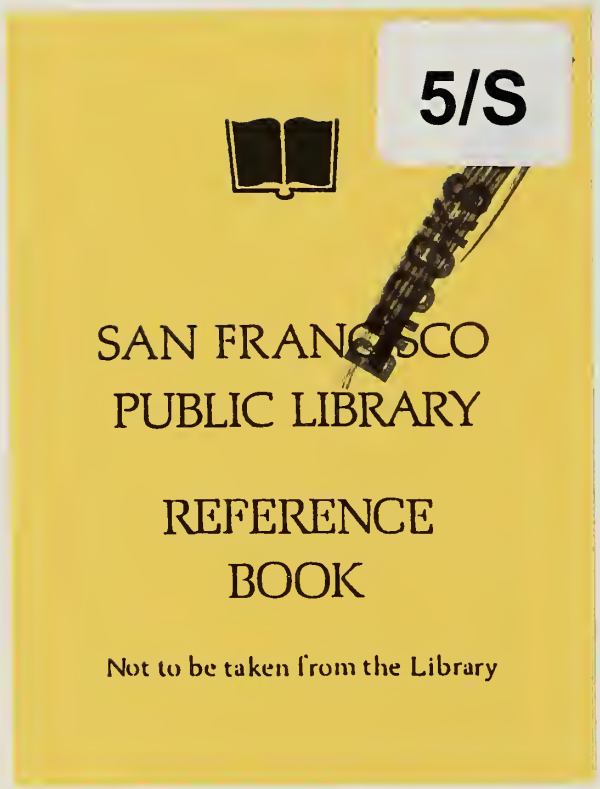

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RINCON HILL PLAN
ENVIRONMENTAL IMPACT REPORT

TABLE OF CONTENTS

		Page
I.	Summary	2
II.	Project Description	8
III.	Environmental Setting	25
	A. Land Use and Zoning	25
	B. Urban Design	35
	C. Cultural and Historic Resources	45
	D. Employment, Housing and Fiscal Factors	48
	E. Transportation	56
	F. Air Quality	59
	G. Noise	61
	H. Energy	64
	I. Geology/Seismicity/Hydrology	65
	J. Community Services	70
IV.	Environmental Impacts	74
	A. Land Use	76
	B. Visual and Urban Design	80
	C. Cultural and Historic	90
	D. Employment, Housing and Fiscal	95
	E. Transportation	101
	F. Air Quality	117
	G. Noise	121
	H. Energy	125
	I. Geology/Seismicity/Hydrology	128
	J. Community Services	130
	K. Growth Inducement	133

TABLE OF CONTENTS (Continued)

		Page
V.	Mitigation Measures	134
VI.	Unavoidable Significant Impacts	142
VII.	Alternatives to the Proposed Plan	143
VIII.	Short-Term vs. Long-Term Consequences of Adopting the Proposed Rincon Hill Plan	146
IX.	Irreversible Environmental Changes	146
X.	EIR Authors and Consultants, Organizations and Persons Consulted	147
XI.	Distribution List	150
XII.	Appendices	160

LIST OF TABLES

		Page
1.	Existing Land Use and Zoning by Block	28
2.	Employment by Block/Subarea	49
3.	Type of Job by Block/Subarea	50
4.	Assessed Property Value and Property Tax Revenue by Subarea	53
5.	Distribution of Property Tax Revenue from Project Area in 1981-1982	54
7.	Rincon Hill Street Characteristics	57
8.	Maximum Carbon Monoxide Values at 100 Harrison, 1980-81	60
9.	Relationship Between Applicable Urban Design Policies of the Comprehensive Plan and the Proposed Plan Objectives	81
10.	Trip Generation-Rincon Hill Plan	102
11.	Rincon Hill Travel by Mode	103
12.	Traffic Impact Summary	108
13.	Existing Transit Service to/through Rincon Hill	109
14.	Transit Demand-Rincon Hill Build-out	111
15.	Proposed Parking Requirements	112

LIST OF TABLES (Continued)

		Page
16.	Rincon Hill Parking Demand	114
17.	Projected Daily Pollutant Emissions	118
18.	Projected Worst-case Curbside Carbon Monoxide Concentrations.....	118
19.	Land Use Compatibility Requirements for Community Noise Levels	122
20.	Estimated Energy Use by Rincon Hill Plan.....	126

LIST OF FIGURES

		Page
1.	Project Area (Photo)	1
2.	Proposed Land Use by Block/Lot	9
3.	Regional Location Map	10
4.	Site Location Map	11
5.	Proposed Public Open Space Plan	12
6.	Streets and Alleys	13
7.	Views from the South and from the Bay (Photos of Model)	14
8.	Views from the Bay Bridge (Photos of Model)	16
9.	View of Proposed Mid-Block Alley to Waterfront (Photo of Model)	17
10.	As-of-Right Height Limits	19
11.	Maximum Height Limits	20
12.	Location Map for Specific Preservation	22
13.	Existing Land Use	26
14.	Existing Zoning Districts	33
15.	Existing Height and Bulk Districts	34
16.	View of Project Area, Looking Southwest on Harrison Street (Photo)	36
17.	View from Project Area Looking Southwest on Folsom Street (Photo)	36
18.	Northeast View from Harrison Street (Photo)	37
19.	Northeast View of the Project Area (Photo)	37
20.	Northwest on Fremont Street (Photo)	38
21.	View of Financial District from Beale Street in Project Area (Photo)	39
22.	View of Financial District from Main Street in Project Area (Photo)	40

LIST OF FIGURES (Continued)

		Page
23.	View of Financial District from Guy Place (Photo)	41
24.	Views from Southwest Boundary of Project Area (Photo)	42
25.	Bay Bridge Anchorage (Photo)	43
26.	Residential Units on Guy Place (Photo)	52
27.	Background Noise Levels	62
28.	Thoroughfare Noise Levels	63
29.	Street Elevations	66
30.	Active Fault Zones in the San Francisco - Bay Area	67
31.	View of Skyline (Facing East) with Proposed Project Build out	83
32.	Rincon Hill: Illustrative Plan	88
33.	Hathaway Buildings (Photo)	91
34.	Klockars Blacksmith Shop (Photo)	91
35.	Joseph Magnin Warehouse (Photo)	92
36.	Sailors Union of the Pacific (Photo)	92
37.	Hills Brothers Coffee (Photo)	93
38.	Union Oil Company Building (Photo)	93
39.	Coffin-Reddington Building (photo)	94
40.	Parking Conditions.....	113

FIGURE 1 : PROJECT AREA

I. SUMMARY

A. Project Description

The Department of City Planning proposes to create a Rincon Hill Area Plan within a twelve block area in the northeastern portion of San Francisco encircled by the Bay Bridge and the Embarcadero Freeway, as shown in Figure 1, page . The project area contains approximately 55 acres of land, presently zoned for industrial use. The streets immediately bounding the project area are Bryant, Folsom, Steuart, and Essex, as shown in Figure 1, page .

The proposed project is a plan which would establish policies and guidelines for future development in Rincon Hill. The Plan divides Rincon Hill into three subareas: Subarea One (Highrise Residential); Subarea Two (Midrise Residential); and Subarea Three (Industrial/Commercial). See Figure 2, page . The land use objective is to create a new residential neighborhood close to downtown which would contribute to the city's housing supply. It would contain additional uses to support the new residential population. The Plan would not in itself produce the actual buildout of Rincon Hill. However, through the enabling land use legislation it sets forth, the Plan would encourage the development of a pedestrian alley network running east-west through Subareas One and Two; the development of no more than four tall, slender, predominantly residential highrise towers up to a maximum of 360-400 feet in height (Subarea One); a series of midrise, predominantly residential buildings from 80 to 200 feet in height (Subarea Two); and some office construction/conversion surrounding the proposed residential area to help provide daytime support for the services and stores contained in the residential area (Subarea Three).

For the Plan to become "city policy", the proposed project requires an amendment to the Master Plan of the City and County of San Francisco. The implementation of the proposed Plan would require the designation of a Rincon Hill Special Use District by a Zoning Map amendment and a Planning Code text change.

The time frame for actual buildout of Rincon Hill under the proposed Plan cannot be determined since the City has no control over property development. Development that does occur will be in response to market forces.

B. Environmental Setting

The 55 acres of land in Rincon Hill (of which an estimated 18 acres are in streets and alleys) are within an M-1 (Light Industrial) and P (Public Use) districts. On May 27, 1982, in Resolution 9403, the City Planning Commission declared its intention to reclassify the proposed midrise and highrise residential area to an RC-2 (Residential Commercial Combined, Moderate Density) Special Use District. In June, 1984, the Planning Commission will again consider interim controls. Existing uses include industrial, commercial, and some residential activities.

In 1982, approximately 44 businesses operated in the project area, employing an estimated 1,700 employees. Over one-half of the employees were in industry/manufacturing. The few residential buildings in the project area are located on Guy Place. They provide permanent housing for an estimated 32 people. Several buildings of architectural merit are located in Rincon Hill. Hills Brothers Coffee and Klockars Blacksmith have landmark status. Other buildings in the area, such as the Hathaway Warehouse, Union Oil Company Building, and the Sailor's Union of the Pacific have high ratings in the Department of City Planning's survey of architecturally significant buildings.

C. Environmental Impacts

In the Initial Study for the project (see Appendix A, page A-1) it was determined that the proposed project would have no significant effect in the following areas: biology, and hazards. These issues were focused out of the EIR and will require no further discussion. Not all issues covered in the EIR are physical environmental impacts as defined under the California Environmental Quality Act (CEQA). Some of the discussion contained in this EIR is socioeconomic in nature and is provided for additional informational purposes only.

Land Use and Zoning

Subareas One and Two would be rezoned for highrise and midrise residential/commercial mixed-use. (Subarea Three would essentially maintain its existing zoning with some modification in parking and open space provisions.) The Plan's proposed heights range from 84 feet to 400 feet. The proposed Plan includes a set of bulk controls designed to taper the buildings at various heights.

Residential density, dwelling unit size and number would be governed by the Planning Code height, bulk, and site coverage limitations, and by criteria governing conditional use as proposed in the area plan. An estimated 3,700 to 6,800 dwelling units could be constructed. At maximum buildout, from 677,000 to 931,000 gross square feet of commercial space could be developed in Subareas One and Two. Approximately four million gross square feet could be developed in Subarea Three under both existing zoning and the proposed Plan.

Urban Design

Full realization of the Plan would result in a mix of older buildings encouraged for preservation and new buildings of varying heights. Older buildings encouraged for retention in the area include the brick portion of Hills Brothers Coffee, the Sailor's Union of the Pacific, the housing on Guy Place, the Hathaway Building, The Union Oil Company Building, the former Joseph Magnin Warehouse and the Coffin-Reddington Building. Development guidelines for new buildings include varying heights to avoid benching at a single level.

Changes in local wind patterns would occur in the project

area/vicinity as a result of buildout. Without actual building layouts and designs, estimated effects can only be speculative. Open space areas such as the east-west walkway system would be shadowed by the surrounding buildings. The extent to which these impacts would occur would be more fully evaluated upon review by specific proposals for development.

Housing, Employment and Fiscal Impacts

The proposed Plan permits residential density to be based on height, bulk and lot coverage limitations. Based on an average unit size of 750-800 square feet, the proposed Plan could result in an increase of housing in Rincon Hill of between 3,700 and 6,800 units. (Range is based on two different estimates; high from Department of City Planning, low from Daniel Solomon and Associates, Architects.)

Up to 15,100 employees could ultimately be located in the Rincon Hill area at maximum buildout. Approximately 1,700 jobs currently exist within the area. The potential range of new employees generated by the project's commercial buildout (excluding the existing employees) would create some new housing demand. If residence patterns were similar to those of office employees in the C-3 (Downtown) Districts, project employees could generate a demand for about 2,140 to 4,440 housing units. The new housing demand would be satisfied, in number of housing units, by housing created in Rincon Hill. However, whether the demand is satisfied in this location would also depend on housing cost, unit size, and people's preferences.

Additional demand for city services generated by the project at full buildout would result in costs to the city. If the project-generated tax revenues would not be enough to cover the additional services, the result would be an increased service load on the existing citywide service levels.

Transportation Impacts

Full build-out of the proposed Plan would generate approximately 110,200 net new daily person trips (11,400 P.M. peak hour person trips). Service levels at critical intersections leading to the regional freeway system would continue to operate at a level of service "F" (jammed conditions). Other streets/intersections would operate at levels of service "D" or better.

At full build-out (maximum zoning envelope), there would be a demand for approximately 5,700 long-term and 400 short-term commercial parking spaces in all three subareas. Under parking standards in the proposed Plan, approximately 6,900 commercial spaces would be required; this figure includes spaces in the intercept parking facilities proposed by the Plan for Blocks 3766 and 3767. The parking requirement for residential build-out in Subareas One and Two would range between 3,700 and 1,700 spaces for the development range of 3,700 units to 6,800 units, respectively, based on standards proposed

by the Plan. The parking demand, however, if similar to that recorded in the Golden Gateway mixed-use development, would range from about 1,900 spaces (3,700 units) to 3,500 spaces (6,800 units).

Full Plan build-out would create approximately 2,000 additional P.M. peak hour Muni trips, which would contribute to cumulative impacts creating loadings at levels of service "D" and "E" (crush loads are measured at the worst level of "F").

The proposed Plan would be part of increased development in the greater downtown area. This cumulative development, which would increase traffic congestion and the need for additional transit service, has been analyzed in the Downtown Plan Draft Environmental Impact Report (EE81.3) up to the year 2000. The analysis examines growth forecasted for the downtown commercial (C-3) districts and non C-3 areas, and evaluates the resultant impacts at selected regional traffic and transit screenlines. Transportation effects of full Rincon Hill build-out have been assumed to be additive to the 2000 impact analysis since full build-out would not be expected to occur, if at all, until after 2000.

Air Quality Impacts

Air quality impacts associated with maximum development under the proposed Plan would result primarily from increased vehicle emissions. Emissions from full build-out alone would not violate any air quality standards. Air quality impacts created by the Rincon Hill Plan and cumulative downtown growth evaluated in the Downtown Plan Draft Environmental Impact (EIR) would not conflict with pollution reduction strategies recommended by the 1982 Bay Area Quality Plan. While it is not anticipated that ozone concentrations would increase in the Bay Area, nitrogen oxides (NOx) and hydrocarbons (HC) (which are precursors to ozone) emitted in the Bay Area could increase ozone concentrations outside of the Bay Area. Carbon monoxide (CO) concentrations are expected to decrease in the future due to state and federal emission controls on new vehicles (and the continually increased proportion of those new vehicles to older polluting vehicles).

Other Impacts

Rincon Hill is exposed to a high level of noise from vehicular traffic. Interior noise levels of new residential buildings would be subject to noise insulation requirements contained in Title 25 of the California Administrative Code. Noise generated from traffic on the Bay Bridge could impact specific sites proposed for open space. The amount of impact would vary depending on the type of open space use (such as recreation on rooftops).

Cumulative Effects

The proposed Plan would be part of increased development in the greater downtown area. This cumulative development, which would increase traffic congestion and the need for additional transit service, has been analyzed in the Downtown Plan Draft Environmental Impact Report (EE81.3) up to the year 2000. The analysis examines growth forecasted for the downtown commercial (C-3) districts and non C-3 areas, and evaluates the resultant impacts at selected regional traffic and transit screenlines (measuring points). Because full build-out of the proposed Plan would not be expected before 2000, and there is no trend information for Rincon Hill to estimate what proportion of full build-out might occur in the 2000 time horizon, full build-out impacts analyzed are additive to the Downtown Plan Draft EIR analysis.

D. Mitigation Measures

A number of mitigation measures have been built into the proposed Plan to reduce potential adverse environmental impacts. Some of these would include Departmental review of specific project designs for conformance with the Rincon Hill Plan before recommending permit approvals; demolition and conversion controls to preserve residential units on Guy Place; enclosing or physically shielding open spaces adjacent to major thoroughfares from noise sources; establishment of design criteria to preclude development which could significantly shade open spaces on other building sites in the project area.

Mitigations proposed in the Plan would not fully address all impacts resulting from the Plan. Additional mitigation measures would be necessary. Private developers of Rincon Hill projects could be required to comply with measures adopted by the Planning Commission addressing transportation impacts caused by cumulative development.

E. Alternatives to the Proposed Project

Alternative One is the No Project alternative. Should this alternative be implemented, the interim zoning would lapse back to M-1, (Light Industrial) and new uses would be developed, subject to economic forces of the private real estate market without more specific guiding policy. The Department has rejected this alternative because it would not maximize the number of housing opportunity sites which could be created in the city without encroaching on existing residential neighborhoods.

Alternative Two(a) would be a rezoning from the present M-1 (Light Industrial) in Subareas One and Two to RC-4, with the retention of the 105 feet height limit. At maximum buildout, this alternative would result in development of up to 5,000 dwelling units and 9.8 million gross square feet of commercial space in the entire Plan area (Subareas one, Two and Three). Implementation of Alternate Two(a)

would result in potential buildings approximately 300 feet shorter than the tallest towers permitted in the project, and 20 feet taller than the lowest height district in the proposed Plan. Compared to the project, this alternative could potentially result in a built out skyline of buildings of great bulk, with no tapering or variation in height. Assuming the commercial build-out, which would allow almost two times more floor area than the proposed plan, would be similar to that of the C-3 District (i.e. primarily office use), the concurrent housing demand generated under this alternative would be for approximately 4,200 - 8,700 dwelling units. (This alternative would not apply to Subarea Three, which would maintain all current M-1 controls, including a floor area ratio (FAR) limit of 5:1).

Alternative Two(b) would be the same as Alternative Two(a) with the exception that the proposed height limits and bulk controls would be similar to the project. Impacts from this alternative's height and bulk guidelines would be the same as the proposed project. The number of housing units which could be constructed at maximum buildout under this alternative would be the same as under alternative two(a). However, incorporation of the proposed project's height limits and design guidelines in this alternative would result in a larger average unit size (greater than 1,500 square feet).

II. PROJECT DESCRIPTION

A. Location

The proposed Rincon Hill Area Plan encompasses a twelve block area in the northeastern portion of San Francisco which is encircled by the Bay Bridge and the Embarcadero Freeway. The streets immediately bounding the project area are Bryant, Folsom, Steuart, and Essex. The twelve blocks within the project are divided into three subareas. Subarea One (Residential Highrise) contains approximately three net acres of land and is located on portions of Block 3747 and Block 3748. Subarea Two (Residential Midrise) has approximately 20 net acres, and accounts for the majority of the project area. The blocks included in this subarea are the following: all of Blocks 3745 and 3746; portions of Blocks 3747, 3748, 3749, 3765, 3766, 3767 and 3768. Subarea Three (Commercial/Industrial) includes approximately 14 net acres. It is located on portions of Blocks 3749, 3764, 3765, 3766, 3767, 3768 and the entire Blocks of 3744 and 3769. The specific Assessor's Blocks/Lots located within each subarea is shown on page 9 Figure 2. The general location of the project is shown on page 10; and the specific project location is on pages 10-11; Figures 3 and 4.

B. Sponsor's Objectives

The Department of City Planning is sponsoring this project. The proposal includes adoption of an Area Plan for Rincon Hill amending the City's Master Plan and creation of a Special Use District in Rincon Hill through amendment of the City Planning Code and Zoning Map. The central objectives of the Rincon Hill Special Use District are to create a new residential neighborhood close to the Downtown which would also contain commercial goods and services to support new residents. Figures 7 through 9, pages 14, and 16-17 provide a general illustration of the scale of development envisioned in the Plan; the model does not represent any specific development proposals. The Plan would encourage sensitive design treatment of such a development to balance with continued light industrial and commercial land uses encouraged in peripheral portions of the area. Development guidelines proposed in the Plan include provisions for open space (Figure 5, page 12), and a pedestrian network (Figure 6, page) within the Rincon Hill area to Downtown and the Bay. The proposed Plan also encourages preservation of several architecturally meritorious and/or historic structures in the subarea.

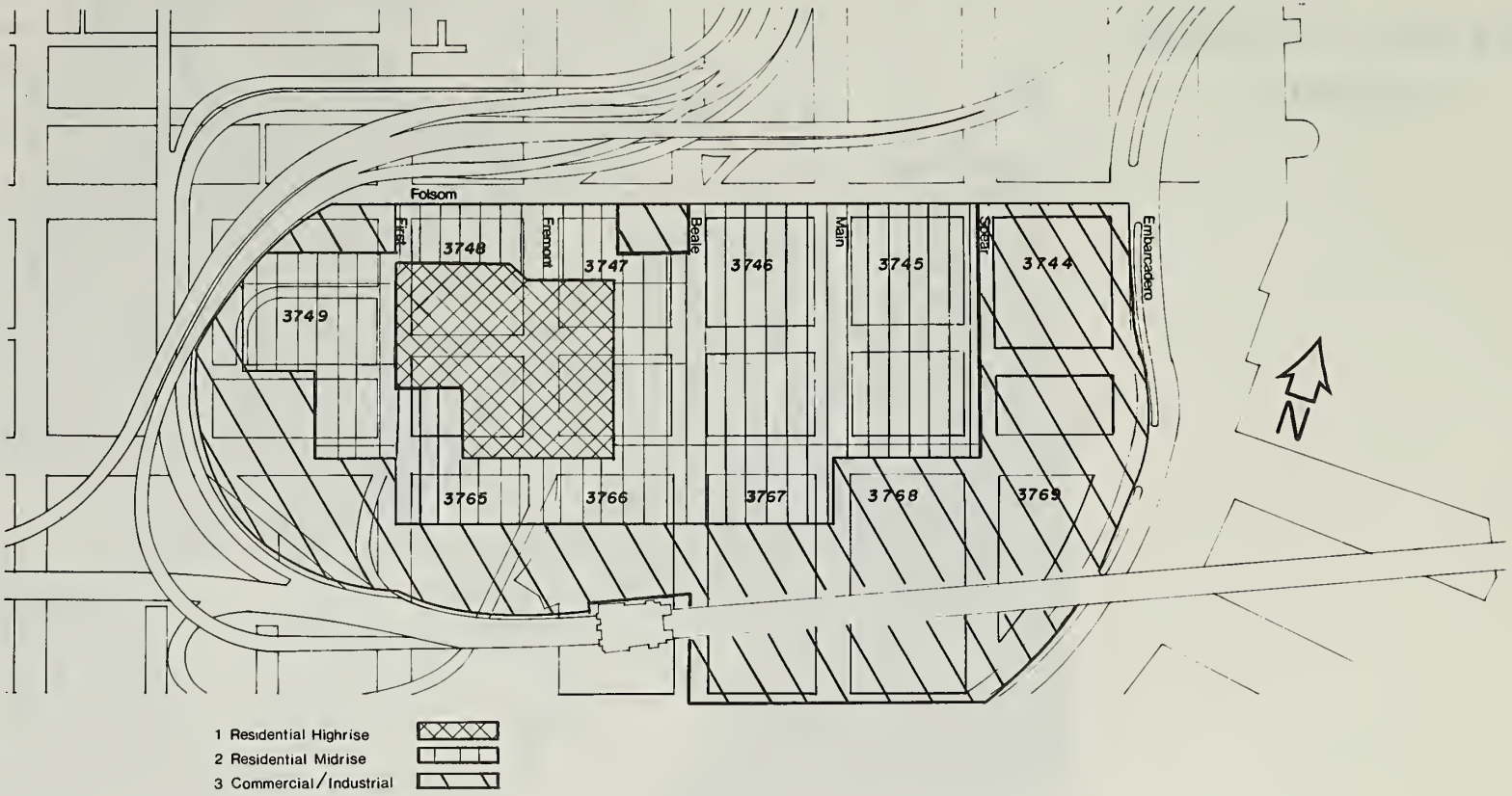

FIGURE 2 : PROPOSED LAND USE

SOURCE: USGS

FIGURE 3 :
REGIONAL LOCATION MAP

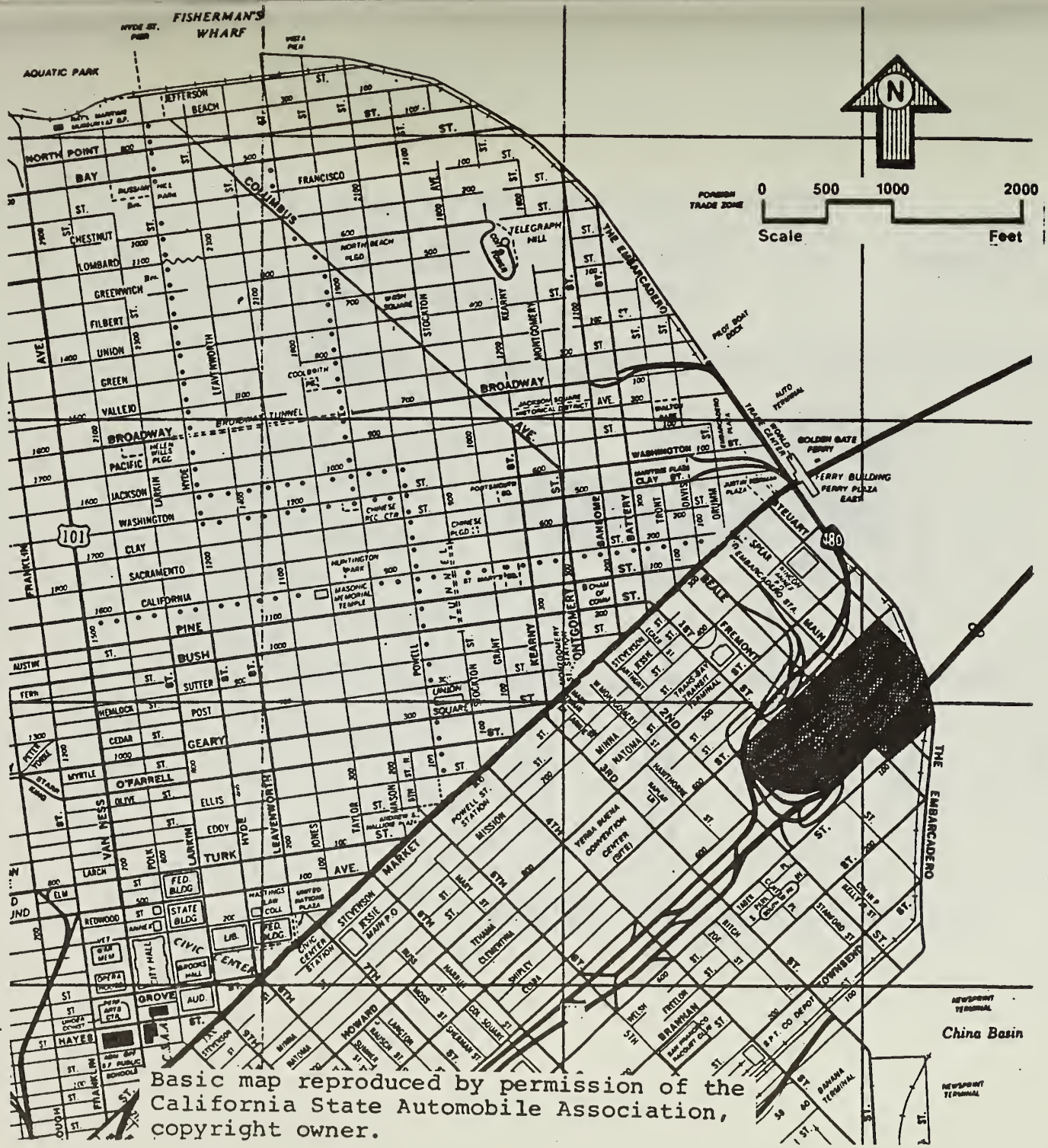

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FIGURE 4 :
SITE LOCATION MAP

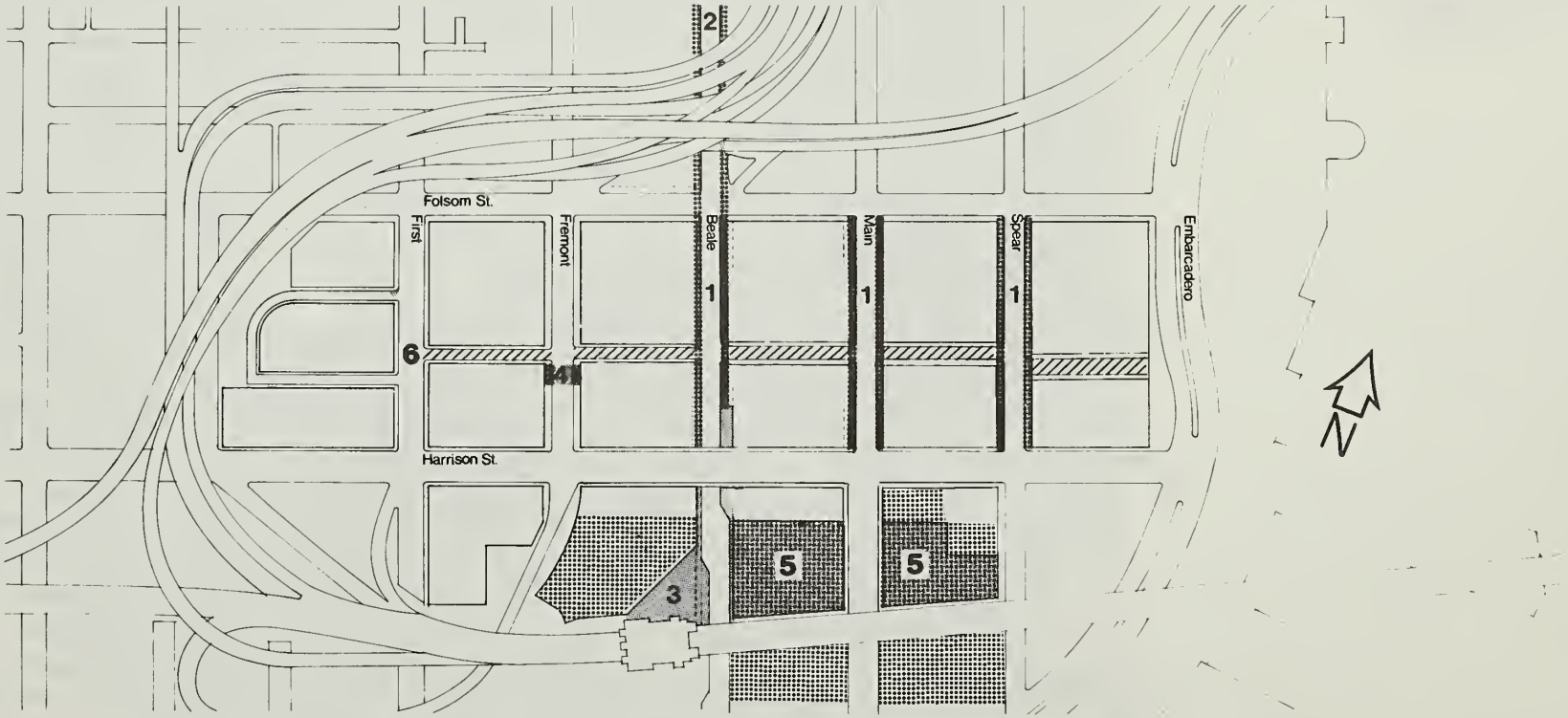


FIGURE 5 : PROPOSED PUBLIC OPEN SPACE PLAN

LEGEND:

1. SIDEWALK WIDENING, STREET BEAUTIFICATION.
2. SIDEWALK WIDENING, STREET BEAUTIFICATION, T TO CREATE PEDESTRIAN CORRIDOR TO FINANCIAL DISTRICT.
3. PRESERVE OPEN SPACE AROUND BAY BRIDGE ANCHORAGE
4. CREATION OF WIDE PEDESTRIAN OVERPASS.
5. RECREATION FACILITIES ON ROOFTOPS.
6. CREATION OF PEDESTRIAN STREET NETWORK

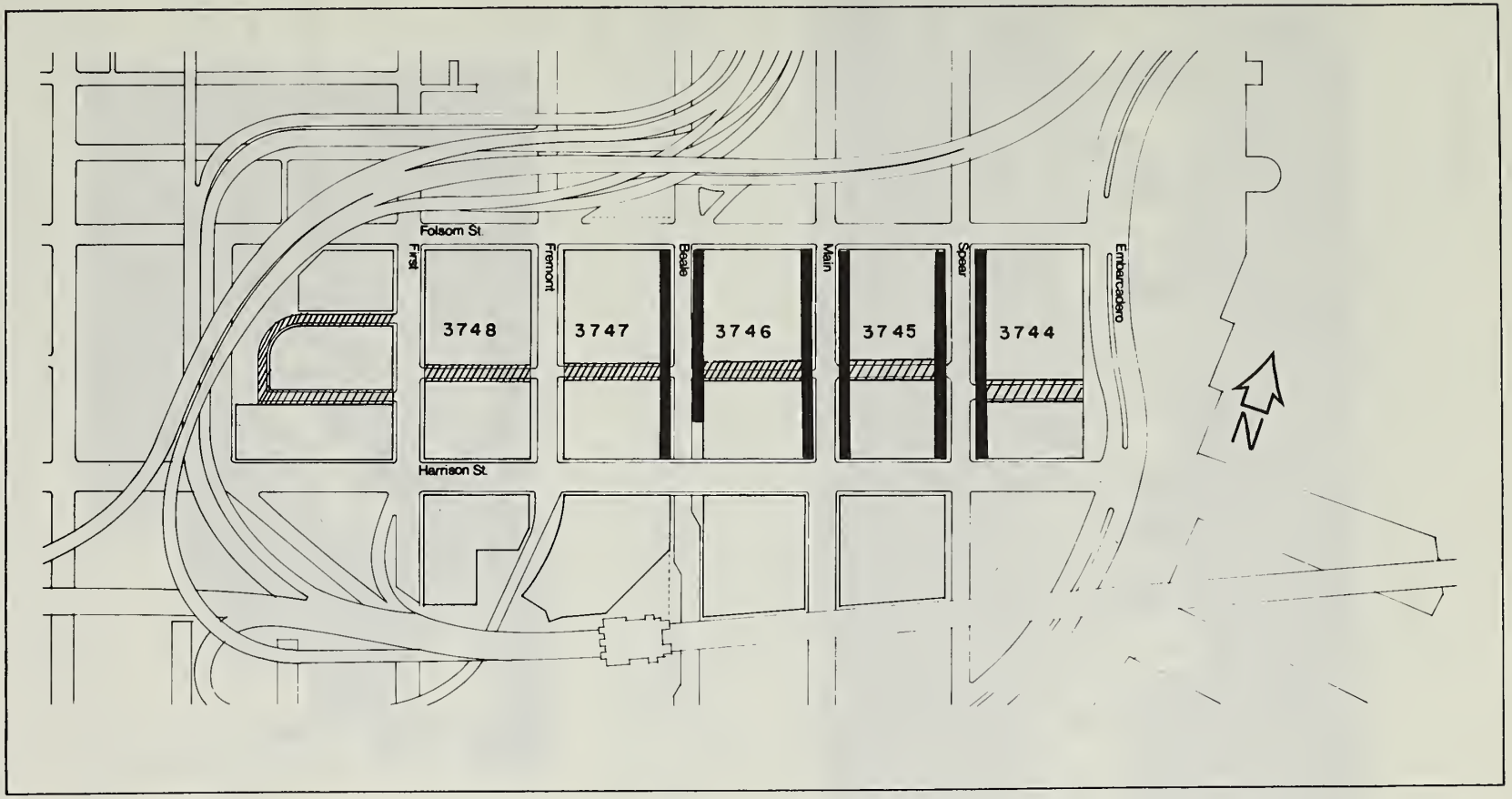


FIGURE 6 :STREETS & ALLEYS

FIGURE 7 : VIEWS FROM THE SOUTH & FROM THE BAY

C. Project Characteristics

1) General Background

The proposed project is a plan which establishes policies and guidelines for future development in Rincon Hill. As such, the project would not itself produce the actual buildout of Rincon Hill. However, through enabling land use legislation set forth by the Plan, a change in land use configuration would occur on an incremental basis from predominantly light industrial and secondary office to the development of a new residential neighborhood with offices, public open space, service retail uses to serve resident needs. An east-west pedestrian-oriented alley system would be developed between Folsom and Harrison Streets leading down to the waterfront from the top of Rincon Hill. (See Figures 8 and 9, pages 16-17)

The Plan is designed to encourage the development of no more than four tall, slender highrise residential towers and a series of midrise residential buildings. The Plan divides the area into height districts following the principle that the highest towers should be clustered near the top of the hill with heights stepping down as elevation decreases.

The proposed project would require a zoning reclassification for the residential area proposed in Subareas One and Two, which could then accommodate between 3,700-6,800 dwelling units. Some new commercial/industrial development would be encouraged on sites surrounding the proposed residential area to help provide daytime support for the service and stores contained in the residential area. Such uses would provide a visual and acoustical buffer between the bridge and freeways, and the new housing sites.

The proposed Plan would be part of a series of rezonings in underused areas close to downtown to be undertaken by the Department of City Planning to encourage housing development. Other underused areas close to downtown which have been identified for residential rezoning by the Planning Department are: Van Ness Avenue, South of Market (other than Rincon Hill) and North of Market.

2) Subarea Requirements

The proposed Land Use Plan divides Rincon Hill into three subareas: Residential Highrise, Residential Midrise, and Commercial/Industrial. (See Land Use map on page 9 and Height Limit Maps on page 19 and 20 , Figures 2, 10, and 11.)

Residential Highrise: This classification would be applied to a limited area. (See Land Use Map, Figure 2, page 9) The classification would be intended to encourage up to four residential towers with as-of-right height limits from 290-320 feet and maximum height limits of 360-400 feet. Building bulk and site coverage requirements would be intended to make the tops of buildings slender, their silhouettes stepped. Proposed height

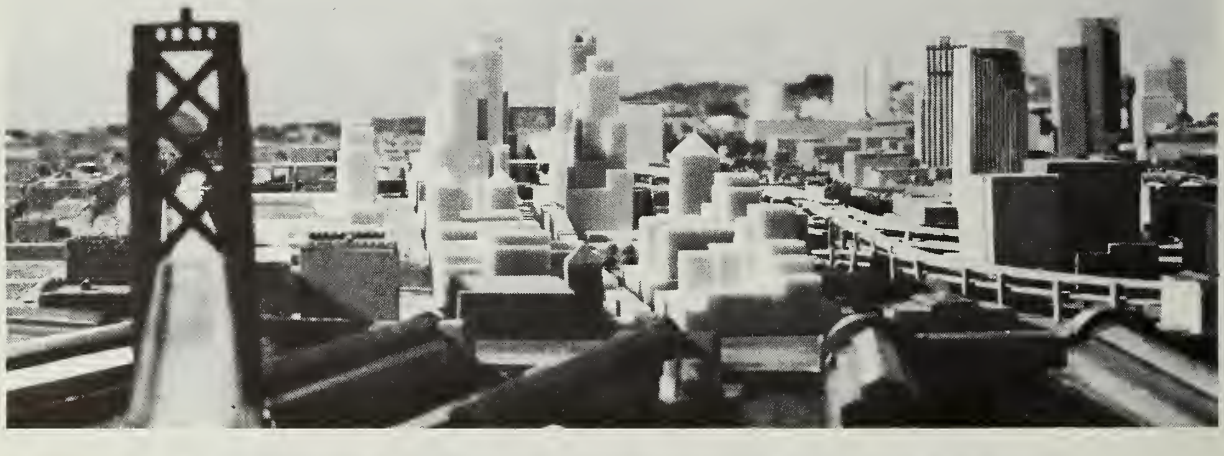


FIGURE 8 : VIEWS FROM THE BAY BRIDGE

FIGURE 9 :

VIEW OF MID-BLOCK ALLEY TO WATERFRONT

limits are shown in Figures 10, and 11, pages 19 and 20). Residential building density and dwelling unit size and number would be governed by the height, bulk and site coverage limitations established in the Plan and set forth in the City Planning Code, and by the Planning Code criteria governing conditional uses. No maximum densities would be specified. Dwelling units could be constructed in these subareas with parking provided at a ratio of either one space for every four dwelling units but not to exceed one space for each unit.[1] Neighborhood-serving retail uses and lowrise row housing would be required at specified locations and some office space and personal services could be accommodated in these subareas.

Developers of highrise buildings would be required to create public and private open space. Publicly-accesssible alleys and walkways on specified lots would be developed privately in conjunction with the new residential development. Build-out of the alleyways in Subarea One, in coordination with alleyway development in Subarea Two would enable the proposed residential neighborhood to achieve a human scale conducive for pedestrian circulation.

Residential Midrise: This classification would apply to the remaining residential area in the project (See Figure 2, page As-of-right height limits range from 84-165 feet, with maximum height from 105-200 feet (see Figures 10, 11, Pages 19 and 20). Provisions for building bulk and site coverage, density, permitted uses, creation of an alley system, and row housing would be similar to Subarea One.

In addition to these provisions, the midrise zone would also include specific guidelines for the retention of existing lowrise housing on Guy Place. The Plan guidelines encourage their preservation by requiring developers who demolish these buildings to replace them at comparable rents in new structures conforming to the requirements for alley housing. Another site designated for preservation is the Sailors Union of the Pacific. The Plan indicates the building should be preserved either in its present use or in a new public-serving use.

Commercial/Industrial: Figure 2, page 9 shows the location of this subarea. The heights would not exceed the limits indicated in the District Height Map, Figure 11 , page 20 . The proposed 84 foot height limit would be a departure from the existing 105 foot height limit. Under the Plan, provisions of the Planning Code which are applicable to the M-1 (Light Industrial) zone would apply except for a revised parking requirement, additional requirements for public open space, sidewalk treatment and Bay Bridge Anchorage setback.[2] This subarea would contain designated sites appropriate for development of commuter parking facilities. It would also contain sites designated for preservation and adaptive reuse.

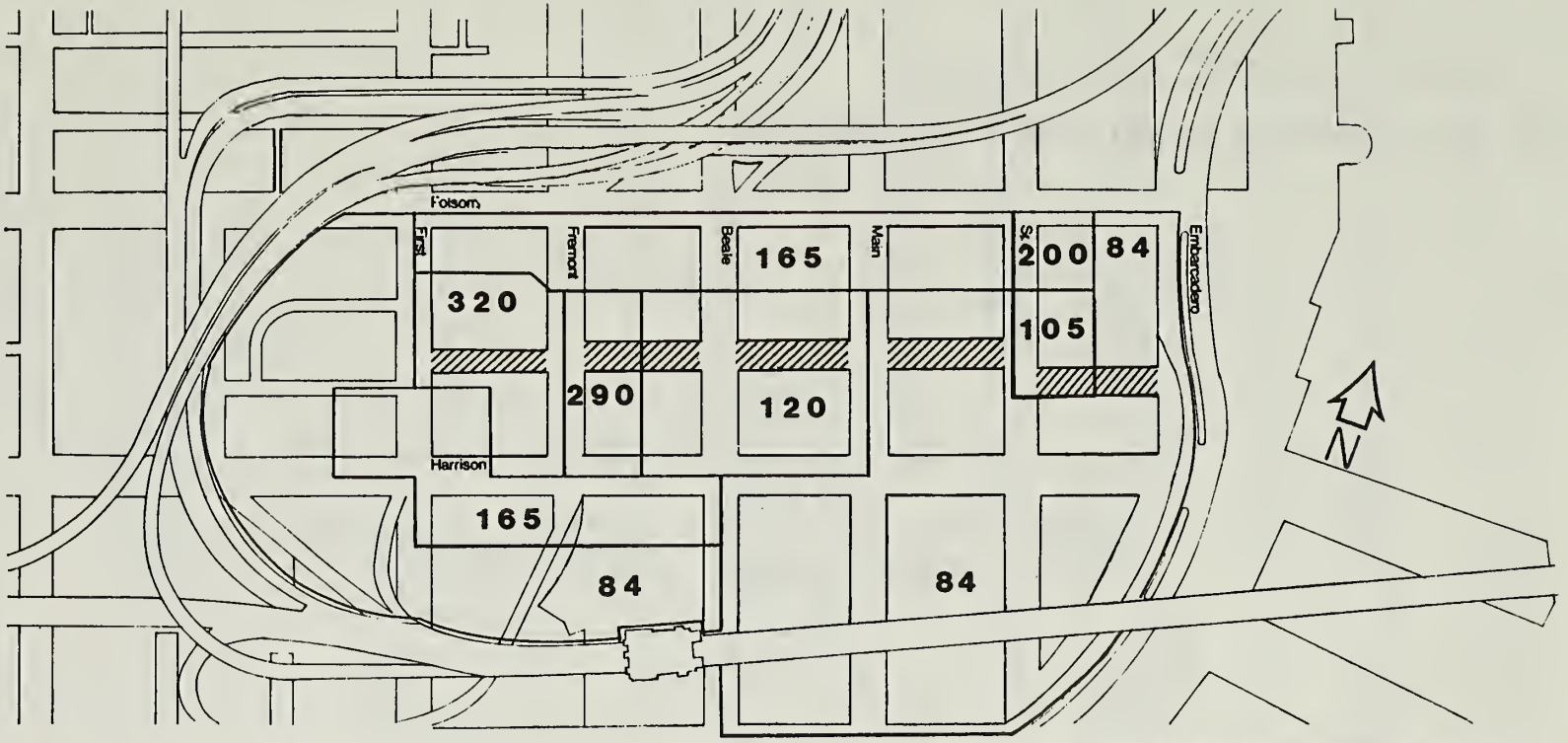


FIGURE 10 : AS-OF-RIGHT HEIGHT LIMITS

ALLEYS (SEE MAP 5, PUBLICLY ACCESSIBLE OPEN SPACE OPPORTUNITIES PLAN PAGE .)

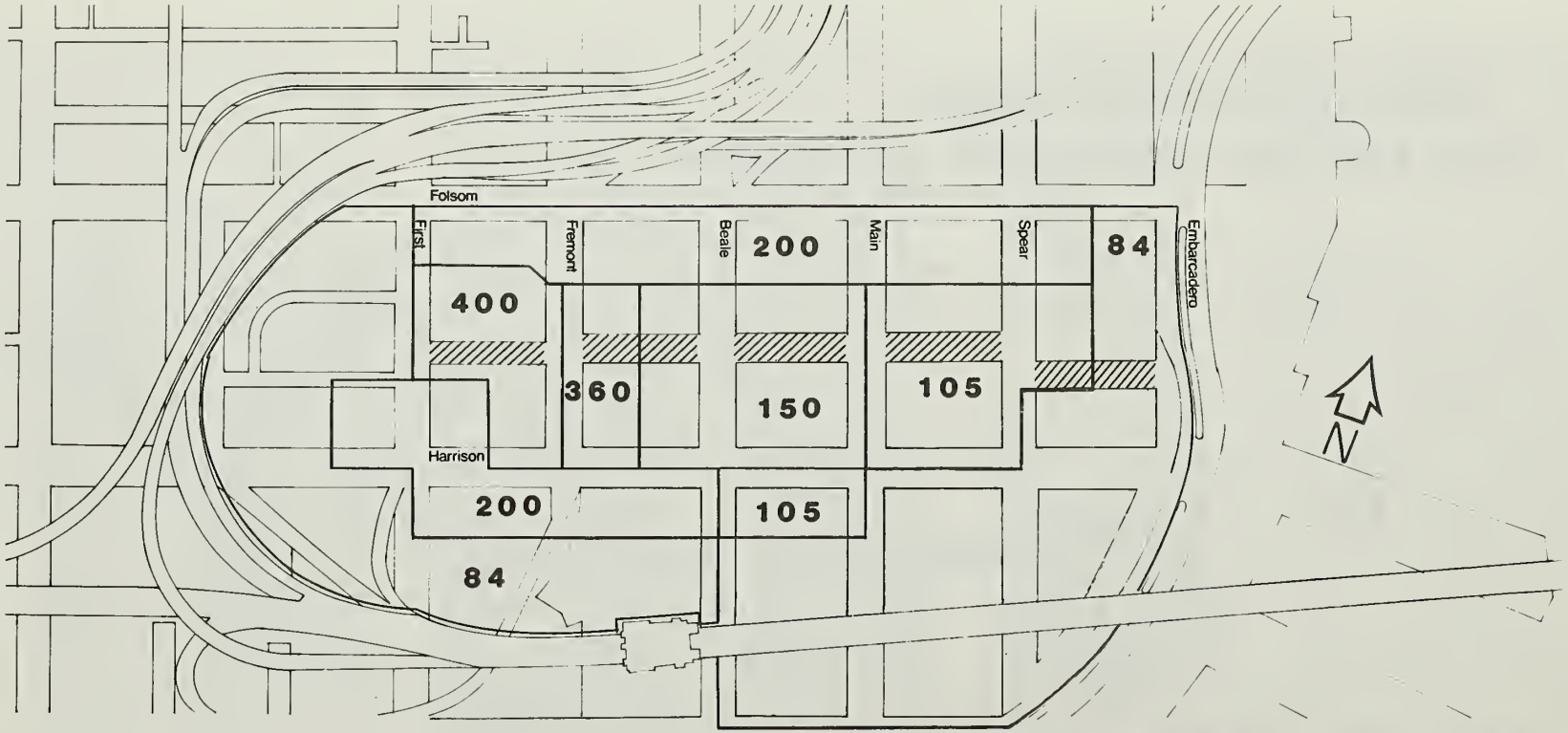


FIGURE 11 : MAXIMUM HEIGHT LIMITS

ALLEYS (SEE MAP 5, PUBLICLY ACCESSIBLE OPEN SPACE OPPORTUNITIES PLAN PAGE .)

3) Specific Site Guidelines

The proposed Plan specifies sites where preservation should be encouraged. The guideline for each of these sites is listed below, and followed by a locational map, Figure 12, page 22.

Site 1 - Existing residential units on Guy Place: The existing dwellings should be retained or replaced at comparable rents in new structures conforming to the requirements for alley housing.

Site 2 - Sailors Union of the Pacific: The building should be preserved, either in its present use or in a new institutional or other public serving use.

Site 3 - Klockars Blacksmith Shop: The building should be retained but moved elsewhere in the general vicinity to make appropriate use of the site and adjacent sites for housing.

Site 4 - Hills Brothers: The brick-faced building fronting on Harrison should be preserved.

Site 5 - Joseph Magnin Warehouse: Rehabilitation of this brick building should be encouraged.

Site 6 - Hathaway Warehouse: Rehabilitation should be encouraged.

Site 7 - Union Oil Company Building: Retention should be encouraged.

Site 8 - Coffin-Reddington Building: Rehabilitation should be encouraged.

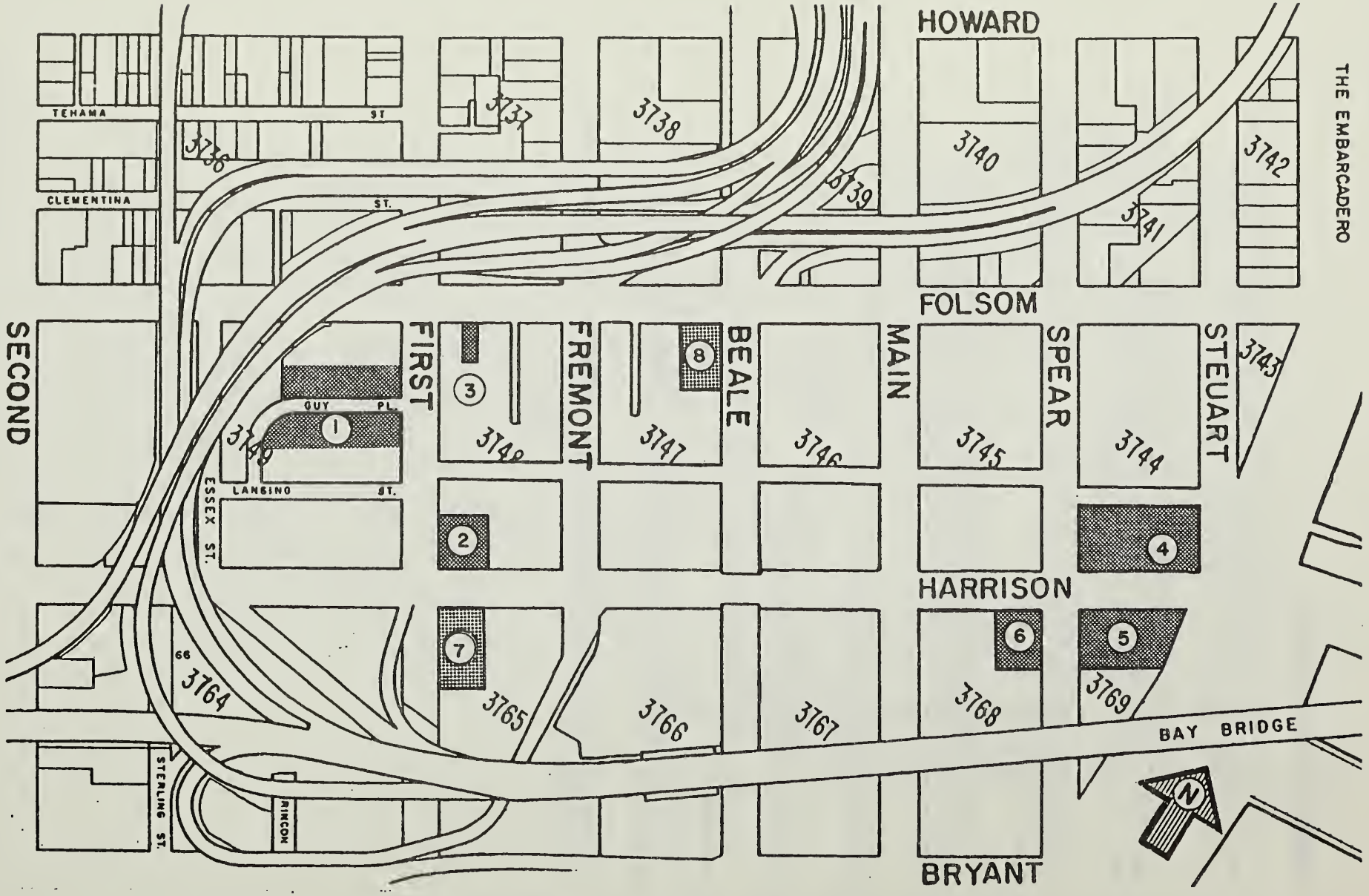


FIGURE 12: LOCATION MAP FOR SPECIFIC PRESERVATION

LEGEND:

1. EXISTING RESIDENTIAL UNITS ON GUY PLACE.
2. SAILORS UNION OF THE PACIFIC.
3. KLOCKARS BLACKSMITH SHOP.
4. HILLS BROTHERS.
5. JOSEPH MAGNIN WAREHOUSE.
6. HATHAWAY WAREHOUSE.
7. UNION OIL COMPANY BUILDING.
8. COFFIN-REDDINGTON BUILDING.

D. Required Approvals

The Rincon Hill Plan is an Area Plan providing guidelines for future development of Rincon Hill. The Plan deals with aspects of the City's environment which are covered by elements of the Master Plan such as Residence, Transportation, Urban Design, Environmental Protection, and Recreational and Open Space. The Plan's objectives and policies are intended to deal with issues unique to the Rincon Hill area. For the objectives, policies and guidelines to become "city policy", the proposed project would require an amendment to the Master Plan of the City and County of San Francisco. An amendment requires a majority vote of the Planning Commission following a duly-noticed public hearing.

The implementation of the proposed Plan requires the designation of a Rincon Hill Special Use District (MUD) by a Zoning Map amendment and a Planning Code text change. This requires action by both the Planning Commission and the Board of Supervisors. The provisions of the underlying M-1 and R (Residential) use districts in the Planning Code would be superceded by the Special Use District provisions whenever there is conflict.

E. Scheduling

Upon certification of the Final EIR, the Commission would consider adoption of both the Area Plan as a component of the Master Plan, and the Special Use District as an amendment to the City Planning Code and Zoning Map. Once approved by the Commission, the Code and Map amendments would require consideration by the Board of Supervisors and the Mayor.

F. Methodology

This Environmental Impact Report (EIR) covers general impacts of the Area Plan for Rincon Hill. The potential worst-case impacts of full build-out under the proposed plan are expressed in a range, which represents scenarios that could occur only if certain assumptions are made about parcel assemblage. The analysis in this EIR evaluates these worst-case effects that could be realized. It is probable that actual impacts would be less than these evaluated in the EIR because in the past San Francisco's actual land use patterns have seldom developed to the maximum permitted zoning.

Unlike other areas of the City under long-range planning review, where proposed policies for the most part are similar to existing conditions and land use patterns, (e.g. C-3 District Downtown Plan, North of Market Mixed Use District, Neighborhood Commercial Rezoning Study), the proposed Rincon Hill Area Plan would introduce mixed-use (residential/neighborhood-serving commercial) development in an area which has been under predominantly commercial and industrial use since the 1900's. As a result, there is no development trend information

available to provide an indication of what level of development could be more likely to occur. Lack of trend information also leaves the EIR analysis provided here without a time frame within which the impacts described might be realized, if at all.

NOTES - PROJECT DESCRIPTION

1) Calculations regarding development potentials are contained in the Department of City Planning background file for the project and are available for public review.

2) In order to preserve views of the Bay Bridge anchorage, development would be prohibited in the triangle framed by dimensions of approximately 90 feet along the triangle's bottom adjacent to the north side of the Bay Bridge anchorage, 100 feet along the triangle's side adjacent to Beale Street, and 134.5 feet along the triangle's diagonal.

III. ENVIRONMENTAL SETTING

A. Land Use and Zoning Setting

The 55-acre project area is located in the northeastern portion of the city in the South of Market district. It is encircled by the interchange of the Bay Bridge, James Lick and Embarcadero Freeways which form a physical and visual barrier from adjoining land use activities. The streets immediately bounding the project area are Bryant, Folsom, Steuart, and Essex.

Areas immediately adjacent to Rincon Hill are zoned M-1 (Light Industry) to the south, M-2 (Heavy Industry) to the east, and C-3-S (Downtown Support) to the west and north. The project site is in the South of Market, an area which has recently been undergoing change. Historically, industrial activity was focused in the South of Market. The area included in the proposed project and surrounding it was rebuilt following the 1906 earthquake and fire with generally high density industrial structures accommodating a variety of warehousing and light manufacturing activities. Figure 13, page 26 shows the mix of land uses in the project area, and Table 1, page 28, provides a block-by-block description of the land uses and their respective zoning classifications.

In recent years, the portion of the South of Market area bounded by The Embarcadero, Townsend Street, the Central Skyway, Mission Street (from South Van Ness to Fourth Street) and Folsom Street (from Fourth Street to The Embarcadero), and more generally San Francisco's industrial lands have experienced encroachment by rapidly growing office and commercial uses. The strong office demand, coupled with major non-industrial developments such as Yerba Buena Center, has caused building and land values to escalate.

San Francisco has experienced a recent phenomenon which is well documented nationwide: the movement of manufacturing activities from central cities into outlying areas. In George Sternlieb and James Hughes' article "The Changing Demography of the Central City,"[1] several explanations for this trend are presented. These explanations fall into two general categories: shifting labor force markets and changing industrial land use patterns. Historically, the central cities provided a large, diversely skilled labor force necessary for the development of mass production industry. Since World War II, an increasing number of skilled workers have moved to suburban areas and many businesses have followed their lead. In addition, many industries are relocating to other parts of the United States and the world, partially because of lower labor costs. Aside from the issue of regional and national redistribution of industrial jobs, the nation as a whole is losing manufacturing jobs.

The redistribution and decreasing number of industrial jobs encouraged by labor force changes in the United States is supplemented by modern industrial technology. New technology makes it more

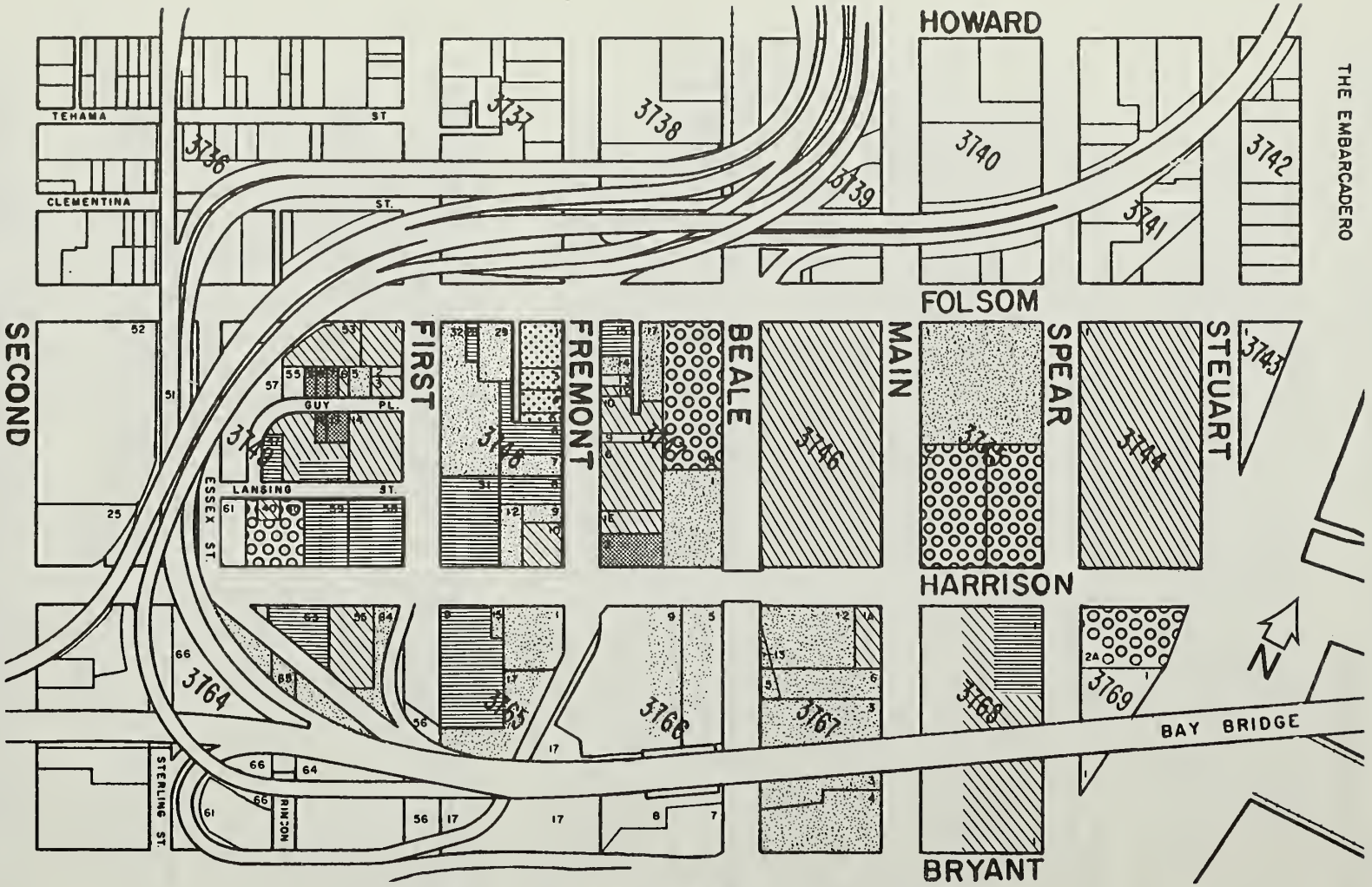


FIGURE 13 : EXISTING LAND USE

LEGEND

VACANT BUILDING | INDUSTRIAL | COMMERCIAL | RESIDENTIAL

UTILITIES | VACANT LOT | PARKING

advantageous to be located on large lots. Modern technology emphasizes integrated assembly processes, increasingly automated, that can be more efficiently laid out on single levels; that is, it is not necessary to lift materials and products in process to upper levels to complete manufacture. This allows continuous single-story systems rather than obsolete multi-storied segmented systems. Lower land costs and modern roadway and infrastructure facilities make outlying areas attractive to industry. For these reasons, many older central cities of the United States have experienced declining industrial employment. San Francisco has shared in this national trend with a 7.8% decline in industrial jobs from 1970 to 1980, compared to an overall 22% increase in total employment in the City.[2]

For example, the San Francisco Bay Area printing sector is typical in many ways of this general decentralizing trend. Between 1970 and 1980 the number of printing and publishing jobs in six Bay Area counties increased by almost 17%, yet San Francisco experienced a 17% decline in the number of printing related jobs. The most significant increases were in Centra Costa, Marin and Santa Clara counties.[2]

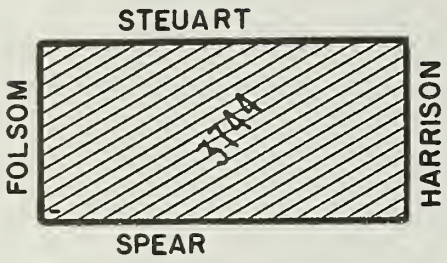
Managers of printing firms in the City attribute this shift chiefly to increased pressure on land values and rents, obsolete buildings, lack of off-street loading space and other causes including high labor costs, high City business taxes and state sales taxes, the need of some firms for larger structures capable of supporting continuous processes, and increased competition from firms in cities, such as Los Angeles, Reno and Portland.[3]

For purposes of discussion regarding impacts of the project on Rincon Hill, all further description of Rincon Hill's environs will be divided into Subarea One (High-rise Residential), Subarea Two (Mid-rise Residential) and Subarea Three (Commercial-Industrial). Of the total land area contained in Rincon Hill, an estimated 18 acres is in streets and alleys. Subarea One accounts for 8 percent of the net land, Subarea Two constitutes 54% and Subarea Three accounts for 38% of the net land in Rincon Hill.

There are 12 parcels of property in Subarea One. Subarea Two contains 42 parcels and Subarea Three is divided into 16 parcels. Some of these parcels are split by the subarea boundaries. Parcels in the project area are under private, State and Federal ownership. Most of the publicly owned land is contained in Assessor's Blocks 3748 and 3749 and in areas proximate to freeway right-of-ways.

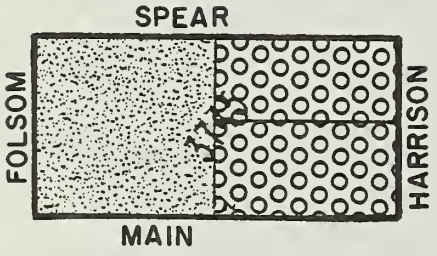
TABLE 1: EXISTING LAND USE AND ZONING BY BLOCK

Block 3744



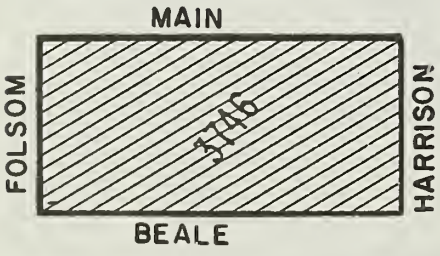
Bounded by Steuart, Harrison, Folsom and Spear Streets, is in industrial use by Hills Brothers Coffee Inc. The entire block is in Subarea Three. (Zoning - M-1 (Light Industrial); height and bulk district - 105-F.)

Block 3745



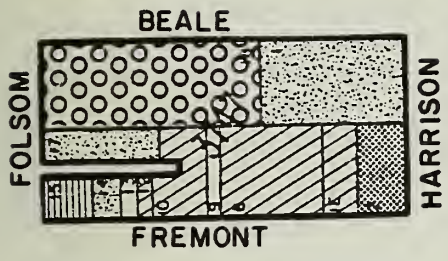
Bounded by Spear, Folsom, Harrison and Main is shared by the State and Federal governments. The State portion is being used for bus parking by Golden Gate Bridge Highway and Transit District. The Federal building is presently a vacant four-story office. The entire block is located in Subarea Two. (Zoning - P (Public); height and bulk district 105-F.)

Block 3746



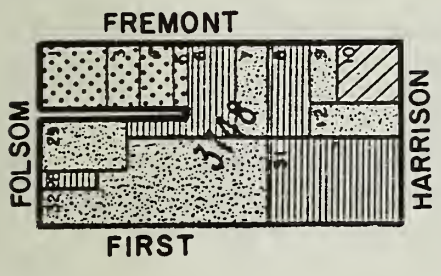
Bounded by Main, Beale, Folsom, and Harrison, is owned by the Federal Government and is presently in use by the U.S. Treasury, GSA, and by the Post Office. The block is located in Subarea Two. (Zoning - P; height and bulk district - 105-F.)

Block 3747



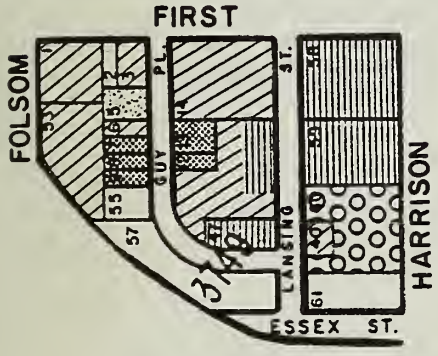
Bounded by Beale, Fremont, Folsom and Harrison has a variety of uses. There are 12 parcels, of which five are located in Subarea One, six in Subarea Two, and one (the Coffin-Reddington Building) in Subarea Three. The range of uses are parking, office, manufacturing, a dining facility and temporary shelter for 30-40 seamen. (Zoning M-1; height and bulk district - 105-F.)

Block 3748



Bounded by Folsom, Harrison, First, and Fremont is subdivided into 14 parcels, of which eight are in Subarea One, five in Subarea Two, and one is split between both Subareas. Range of uses include parking, office activities, manufacturing, service and utilities (P.G.and E. substation). (Zoning - M-1; height and bulk district 105-F.)

Block 3749

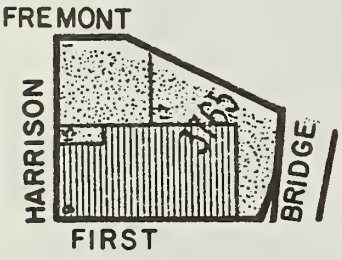


Bounded by Folsom, Harrison, Essex, and First Streets, contains 21 lots, of which 16 are in the project's Subarea Two. The 16 parcels are in use for service activities to seafarers (outpatient health clinic, pension program), parking, office, manufacturing, printing and residences. The remaining five parcels in Subarea Three are in use for wholesale, printing, parking, manufacturing, and for open space contouring the project area's southern boundary. (Zoning - M-1 and NCU (Non-conforming uses); height and bulk district - 105-F.)

Block 3764

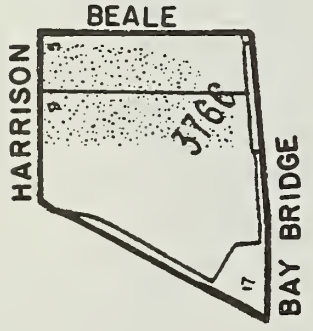
Bounded by Bay Bridge, First and Harrison Streets, is in Subarea Three and contains two lots in use for parking, recreation (squash club), and manufacturing. [(Zoning - M-1; height and bulk district - 105-F.)]

Block 3765



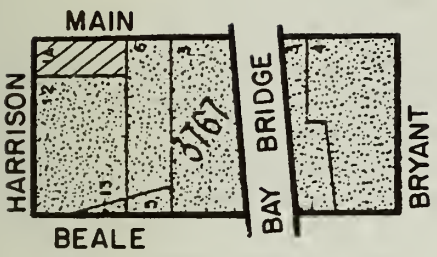
Bounded by the Bay Bridge, First, Harrison, and Fremont, and contains four lots, of which Three are used for parking, and one is used by Union Oil for office. Two of the lots are in Subarea Two; one lot is in Subarea Three. The Union Oil site is split between Subareas Two and Three. (Zoning - M-1; height and bulk district - 105F).

Block 3766



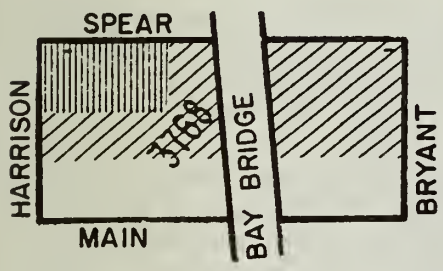
Bounded by Harrison, Bay Bridge, Beale and Fremont. Bay Bridge off-ramp has two lots both split in Subareas Two and Three The lots are used for parking and open space. (Zoning - M-1; height and bulk district - 105-F.)

Block 3767



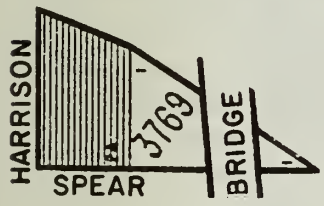
Bounded by Main, Beale, Bay Bridge and Harrison Street includes six lots, of which two are in Subarea Two, three are in Subarea Three, and one is split between the two Subareas. Uses include manufacturing, storage, and parking. (Zoning - M-1; height and bulk district 105-F.)

Block 3768



Bounded by Main, Spear, Bryant, and Harrison is entirely in Subarea Three. Uses range from storage, small office space, and printing. (Zoning - M-1; height and bulk district - 105-F.)

Block 3769



Bounded by Harrison, Spear, Embarcadero contains 1 building presently vacant. The site is within Subarea Three. (Zoning - M-1; height and bulk district - 105-F.)

Except for two blocks zoned P (Public) and in state and federal ownership, the Plan area (Subareas One and Two and Three) is classified by the City Planning code as an M-1 (Light Industrial) District (See Figure 14, page 33). Uses permitted in an M-1 District include residential as a conditional use, professional and business offices, retail business and personal service establishments, entertainment and assembly, home and business services, automotive sales and services, repair garages, parking lots and buildings, wholesaling, and storage and light manufacturing as principal uses. These uses are permitted in this district with a basic Floor Area Ratio (FAR) of 5.0 to 1; that is, buildings may have a basic total floor area that is five times the area of the site.[5]

The project area is in a 105-F Height and Bulk District in which the maximum permitted height is 105 feet (See Figure 15, page 34). Above a height of 80 feet, the maximum permitted building length is 110 feet, and the maximum permitted diagonal dimension is 140 feet.

Several approved development projects are adjacent to the Rincon Hill Project. Adjacent to the southwest boundary of the project area is the Second and Folsom project, the site of two approved midrise office buildings (EE81.18); 400 Second (82.384 EVD), a four story office conversion; 600 Harrison Street (82.241 EC), a six story office and retail building; and Second Street Square (82.591E), a six-story office/trade mart conversion. North of the project area, an 18-story office building has been approved at 201 Spear Street (EE80.337). Also approved north of the project area is the Rincon Point Redevelopment Plan, and approved southeast of Rincon Hill is the South Beach Redevelopment Plan (EE80.267) which combined include proposals for up to 3,000 new residential units, two public parks, a boat harbor, a hotel complex, and adaptive reuse of several structures of historic merit.

NOTES - LAND USE AND ZONING

1) George Sternlieb and James W. Hughes, "The Changing Demography of the Central City," Scientific American, Volume 243, No. 2, August 1980, pages 48-54.

2) U.S. Bureau of the Census, County Business Patterns: California, CBP-70-6, July 1972, County Business Patterns: California, CBP-80-6, July 1982.

3) Gerald Adams, "An Exodus of Printers," San Francisco Examiner, January 20, 1982, page ZA1.

4) Assessor Blocks 3745 and 3746 under State and Federal ownership are not bound by local jurisdiction.

5) City and County of San Francisco Planning Code, Section 124.

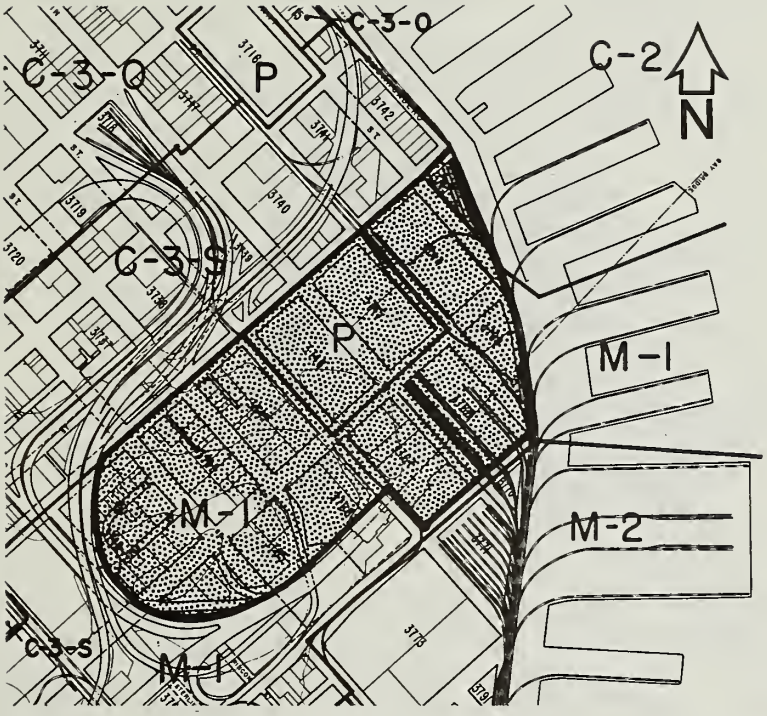


FIGURE 14 : EXISTING ZONING DISTRICTS

M-1 = LIGHT INDUSTRIAL
P = PUBLIC

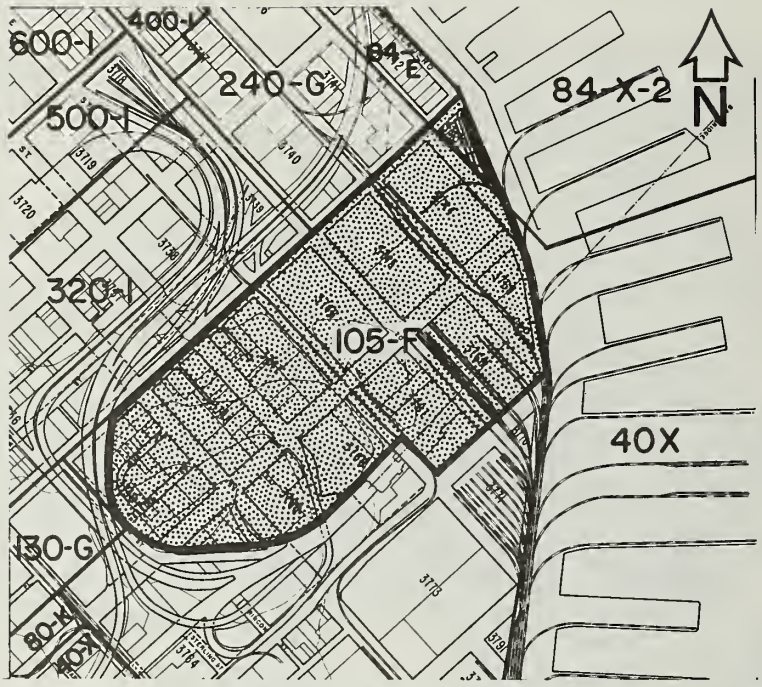


FIGURE 15 : EXISTING HEIGHT & BULK DISTRICTS

F = MAXIMUM PLAN DIMENSION - 110' LENGTH ,140' DIAGONAL ABOVE 80'

B. Urban Design Setting

The topography of the project area rises from its lowest point at the near northeastern boundary of Steuart between Folsom and Bryant, and peaks southwest of Harrison and First Streets.

The project area is characterized by a variety of land uses including warehousing and light manufacturing, offices, parking lots, and residences. The residential buildings are clustered on Guy Place in two to four-story wood frame structures. The buildings all postdate the 1906 Earthquake and range from box frames, to Victorians with ornate parapets and bay windows. The Guy Place residences are interspersed with two to three-story concrete and brick warehouses and office buildings.

Buildings noted for their architectural merit are discussed in the Cultural Setting, page 44. The presence of the Sailor's Union of the Pacific, Union 76 tower, and the Hills Brothers tower and painted wall sign provide a visual focal point in Rincon Hill when viewed from the Bay Bridge (eastern boundary of the project area), and the Folsom Street and Harrison Street corridors. With the exception of these three buildings, the existing structures in Rincon Hill are generally not visible beyond the buildings and street segments in the immediate vicinity.

The project area is dominated by lowrise industrial buildings of concrete, wood, and brick construction materials which range from two to six floors. The multiple levels of the freeway ramps and the approach to the Bay Bridge encircling the project area make it a visually distinctive district from a bird's eye view and to travelers on the Bay Bridge. Views of Rincon Hill's surroundings from within the project area are limited by the overhead freeway ramps. The ramps rise above most of the adjoining buildings in the area. From Folsom Street, west and northwesterly views of highrise buildings in the Financial District are obstructed by the overhead freeway ramps. The Financial District structures are less obstructed when viewed from Harrison Street. This is partly due to Harrison Street's elevation gain in relation to Folsom Street. Southwestern views from the project area are terminated abruptly by freeways. Views of the north and east are of the Bay Bridge, Treasure Island, and the East Bay. Figures 16 to 25, pages 36 - 43 , show views from the project area.

Wind conditions are one determinant of pedestrian comfort on sidewalks and in other public areas. In San Francisco, the five-month summer season (May through September) experiences the highest mean wind speed of 8.0 miles per hour (mph). By comparison, the mean wind speeds for the winter (November through March) and "transition" months are 4.8 and 6.0 mph, respectively.[1] Mean wind speeds of 8.0 and 11.0 mph are accepted as the comfort criteria for plazas and sidewalks, generally above which pedestrian discomfort is experienced. Wind speeds of 35 mph can conceivably unbalance an elderly pedestrian, and represents a hazardous condition. The extreme wind conditions that would result in 35 mph winds are infrequent.

FIGURE 16 : VIEW OF PROJECT AREA, LOOKING SOUTHWEST ON HARRISON STREET

FIGURE 17 : VIEW FROM PROJECT AREA LOOKING SOUTHWEST ON FOLSOM STREET

FIGURE 18 : NORTHEAST VIEW FROM HARRISON STREET

FIGURE 19 : NORTHEAST VIEW OF THE PROJECT AREA

FIGURE 20 : NORTHWEST ON FREMONT STREET

FIGURE 21 : VIEW OF FINANCIAL DISTRICT FROM BEALE STREET IN PROJECT AREA

FIGURE 22 : VIEW OF FINANCIAL DISTRICT FROM MAIN STREET IN PROJECT AREA

FIGURE 23 : VIEW OF FINANCIAL DISTRICT FROM GUY PLACE

FIGURE 24 : VIEWS FROM SOUTHWEST BOUNDARY OF PROJECT AREA

FIGURE 25 : BAY BRIDGE ANCHORAGE

Existing wind conditions in the Rincon Hill area are calm relative to other areas in San Francisco. The main factors that create this condition: The project area is located on the eastern side of the City, separated from the source of the prevailing winds (Pacific Ocean) by many topographic and structural elements. The project area contains a low scale of development that does not intercept many winds. In spite of Rincon Hill itself, the terrain is relatively flat, and therefore does not have much potential for accelerating winds.

NOTES - URBAN DESIGN

1) Existing San Francisco wind information is excerpted from a report prepared by Donald Ballanti, Consulting Methodologist, Wind Impact Evaluation for the Proposed Second and Harrison Building (82.241EC), San Francisco, December 10, 1982.

C. Cultural And Historic Resources Setting

The area today known as Rincon Hill was once occupied by the Costanoan Indians. However, the nearest known Costanoan Village, Awas-tes, was located about 2.5 miles to the southwest. No prehistoric archaelogical sites have been recorded within the area, although within two miles a shellmound was discovered in 1929 and a human burial disinterred in 1970.

Europeans first visited San Francisco in 1769 and in 1776 permanent settlements were established at the Presidio and Mission Dolores. Colonization was slow; as late as the mid-1830's the only other settlement in present day San Francisco was the village of Yerba Buena located at a cove on the Bay in the general vicinity of present-day Jackson Square. Expansion of the village did not occur until after the American occupation of 1846, which year also saw the installation of a United State military reserve with a battery of 32 lb. cannons at Rincon Hill.

The influx of the 49'ers triggered expansion of the village, much of which occurred to the south of the Rincon Hill area. (Although the Hill has all but disappeared, in the mid 1800's it encompassed roughly the area bound today by Third, Spear, Folsom and Bryant Streets.) In the 1850's and 60's construction on the hill, particularly the uppermost parts, was residential for it was a most attractive location for habitation (until the cable cars in the 70's opened the heights to the west). Sea captains, shipping merchants and other entrepreneurs wanted their families to avoid the raucous characteristics of the burgeoning original settlement. Concurrent with residential development, the shallow waters some 300 feet to the east of the Hill were being filled and developed with commercial rows, seamens' services and attractions, chandlers, warehouses, and of course, wharves.

One of the early and long significant buildings in the area was the Sailors' Home on the tip of old Rincon Point, facing Harrison Street (and the Bay) between Spear and Main Streets. Constructed in 1852 as the United States Marine Hospital, it was subsequently used as a seamen's home and around the turn of the century as a home for indigents, operated by the City. Today the site is shared by a Golden Gate Transit bus yard and an empty office building.

Although the earthquake and fire in 1906 leveled most of the area, some early buildings outside the burned district survive. Because the area's attractiveness for residential purposes had long ceased, it was generally rebuilt for commercial and industrial use, although pockets of housing still exist.

Later construction of the freeway and Bay Bridge once again leveled many structures in the area. A survey of literature dealing with this area suggests that archaelogical remains probably still lie buried under the extant man-made environment. Early developers had a propensity to simply bury all of what lie in the way of their landfill projects, be it wharves, pilings, ships, etc. rather than to remove

them. The archaelogical report of the previously mentioned shellmound discovered in 1929 noted that the mound excavation had also exposed historic foundation walls and artifacts.

One of the early survivors is the Hathaway Building , 101 Harrison, dating from the 1860's, which was originally a single story building. The second story was added sometime after 1891 with further alterations to its present size after 1920. In the Department of City Planning City-wide 1976 Architectural Survey, it received a rating of "3". (In that survey, approximately 7% of the City's entire stock of buildings were awarded a rating for architectural merit in one of six categories ranging from "0" to a high of "5". The total number of buildings were were awarded ratings of "3", "4" or "5" represents less than 2% of the city's entire building stock.)

In the same survey, the Hill Brothers Coffee Building, 2 Harrison, received an overall rating of "3". It has also been designated a city landmark and has received a Determination of Eligibility notification from the National Register of Historic Places. The Union Oil Company Building, 425 First Street and the Sailors' Union of the Pacific, 450 Harrison Street, both received ratings of "4" in the survey. Buildings in the Rincon Hill area which received a rating of "2" in the 1976 survey include 66-68 and 70-76 Lansing; 33 Second; 501 Folsom, and the former Joseph Magnin Warehouse at 59 Harrison. Other notable structures include Klockars Blacksmith and Metal Works, built in 1912 at 443 Folsom which received a rating of "1" in the 1976 survey and subsequently local landmark designation. Other buildings with this same rating include those at 75 Lansing, 347 Fremont and 355 Fremont. The structure at 401 Folsom was given a rating of "0".

In 1979, the Foundation for San Francisco's Architectural Heritage published its findings of a downtown survey of buildings of architectural and historic merit in a volume titled Splendid Survivors, San Francisco's Downtown Architectural Heritage. In it, all buildings erected after 1945 were rated from a low of "D" to a high of "A". The Rincon Hill buildings described above were not located in the initial survey area (nor in a subsequent one, the two of which combined encompass the C-3 zoning districts) and thus were not rated. Nevertheless, all four buildings were recognized for their architectural excellence in a secton of the volume entitled "Secondary Survey Areas", the intent of which was to call attention to the necessity of further in-depth surveys to inventory and rate buildings of architectural and historic merit outside the downtown area.

Aside from structures, a site on First Street between Harrison and Bryant is designated as California Historical Landmark #84 (Department of Parks and Recreation, 1979) in recognition of its military significance as site of the aforementioned cannon battery.

NOTES - CULTURAL AND HISTORIC RESOURCES

1) This section was written by Ed Michael, Department of City Planning, using reference materials from Suddenly San Francisco, by Charles Lockwood. San Francisco, CA: San Francisco Examiner, Division of the Hearst Corporation, copyright 1978. San Francisco Waterfront, by Olmsted, Olmsted, and Pastron. Prepared for the San Francisco Wastewater Management Program, copyright 1977. Potrero 7: Phase 1, "Cultural Resources Review and Inventory," by Wirth Associates, Inc. for Pacific Gas and Electric Company, page 34.

D. Employment, Housing, and Fiscal Setting

1) Employment:

Existing Business and Employment Characteristics in Rincon Hill

The project area contains approximately 44 operating businesses.[1] The total number of people employed by these businesses is an estimated 1,700. Thirty-three businesses accounting for 1,150 employees are located within Subarea One and Two[2]; the remaining 11 businesses employing approximately 550 persons are located within the proposed Subarea Three (see Table 2, page 49 : Employment by Block/Subarea).

Of the 33 businesses in Subareas One and Two, an estimated 45% of employment can be categorized as industry-related. Such businesses include the printing trade (i.e., printing, photo plate making, typesetting, embossing, bookbinding and publishing); blacksmithing; machine working; construction contracting; wholesale storage, production and distribution; and manufacturing. An estimated 520 people are employed by these businesses, of which about 60% (310 people) are employed in printing-related industries.

Five of the businesses in Subareas One and Two are commercial offices. Four of the offices are for professional services (i.e., graphic design, advertising, and architecture) and are located in converted industrial/warehouse buildings. These four offices employ approximately 30 persons. The fifth and largest office is Union Oil's credit office which employs 370 people.

Eight businesses in Subarea One and Two are service-related, employing approximately 100 people. Six of the eight establishments are operated exclusively for seafarers, and include two unions, one union hiring hall, one health and welfare fund for seamen, one outpatient medical clinic for seafarers, and a seafarers residence and dining hall providing temporary shelter for 30-40 seamen in need.

The United States Post Office, Government Service Administration laboratory, and United States Treasury Dispersing Center are the known remaining enterprises in Subareas One and Two, with approximately 130 employees. Until recently (1982), the U.S. Post Office employed 600 people at this location. It was the largest employer in Subarea Two.

An analysis of employment by job function indicates that about 40% of the people employed in Subareas One and Two have clerical jobs. About 35% of the people in these subareas have jobs in production; about 20% have administrative jobs (management, professional, or technical); and five percent work in sales. (See Table 3: Job Function by Block/Subarea, page 50).

TABLE 2

EMPLOYMENT BY BLOCK/SUBAREA[1]

ASSESSORS BLKS/SUBAREA 1 + 2(Subareas)	NUMBER OF PERSONS EMPLOYED IN: INDUSTRY MANUFACTURING	COMMERCIAL & RELATED(UNION; SRV.)	GOVERNMENT	RESIDENTIAL
AB 3745 (1/2 Blk Vacant; 1/2 Blk Bus. Parking)				
AB 3746			130	
AB 3747	190	40		30-40**
AB 3748	10	60		
AB 3749	250	30		
AB 3765*		370		
AB 3767	70			
Total Subarea 1 and 2	520	500	130	
AB 3744	320			
AB 3749	116			
AB 3764	20	1		
AB 3768	60	14		
AB 3769				
TOTAL SUBAREA 3	520	15		

1) Numbers are rounded

* Split between Subareas Two and Three. Counted in Subarea Two, but not Three to prevent double counting.

** Temporary Shelter for Seamen.

TABLE 3

TYPE OF JOB BY BLOCK/SUBAREA[1]

Assessors Blocks Subarea 1 and 2	Sales	Clerical	Production	Management, Professional Technician
AB 3745	-0-	-0-	-0-	-0-
AB 3746	-0-	20	60	50
AB 3747	15	35	130	45
AB 3748	-0-	20	25	30
AB 3749	40	40	140	65
AB 3765*	-0-	320	-0-	50
AB 3767	10	20	35	5
TOTAL Sub-AREA 1 and 2	65	455	390	245
Assessors Blocks Subarea 3				
AB 3744		85	145	90
AB 3749	5	20	75	20
AB 3764	-0-	-0-	15	5
AB 3768	5	10	50	10
AB 3769	-0-	-0-	-0-	-0-
TOTAL SUBAREA 3	10	115	285	125

1) Numbers are rounded.

*Split between Subareas Two and Three, only counted in Subarea Two to prevent double counting.

Eleven businesses are located on parcels entirely within Subarea Three. Approximately 535 people are employed by these businesses. There are seven industrial businesses which include the printing trade; wholesale distributing; and manufacturing. About 20% of the people in the industrial businesses are in printing-related trades.

Two of the 11 businesses in Subarea Three are commercial offices. They are commercial art and advertising agencies located in the "Hathaway Building" and employing approximately 15 persons. The Joseph Magnin Warehouse, now vacant, was the corporate headquarters of Joseph Magnin, employing 100 persons until 1982. One recreational facility (squash club), employing 1 person, is located in Subarea Three.

Approximately 55% of the people employed in Subarea Three work in production. About 25% of the people in Subarea Three have administrative jobs; about 20% have clerical jobs and two percent work in sales.

2) **Population and Housing**

An estimated 319,000 housing units currently exist in San Francisco.[3] Approximately one-third of the units are single family homes, one-third of the units are in small buildings with two to nine units, and another one-third are in large multi-family buildings with ten or more units.[4] (About two-thirds of the housing stock is rented and one-third is owner-occupied.) The vacancy rate for rental units available for rent decreased from 3.17% in 1970[5] to 2.68% in 1980.[6] At the same time the vacancy rate of units available for sale increased from .23% in 1970 to .56% in 1980.

The number of housing units increased 2.7% from 1970 to 1983 while the city's population decreased 1.4% and the number of persons per housing unit declined 4% (from 2.34 to 2.24) during the same time period. Despite the increase in housing units and decrease in population since 1970, San Francisco has a tight housing market. Contributing factors include an increase in number of households (1.3% from 1970 to 1983)[3], and the cost of building housing. Other factors include real estate investor purchasers, and upgrading and beautification of the older housing stock.

Within the Rincon Hill area, there are sixteen residential units located on Guy Place within the proposed Subarea Two (see Figure 26, page). This is the only permanent residential enclave in Rincon Hill. It provides housing for 32 people.

During preparation of the Rincon Hill Plan, the residents of Guy Place formed a Rincon Hill Tenants Association (Rin-Ten-Ten). A master list of all the tenants on Guy Place was obtained and a housing survey prepared by staff of the Department of City

FIGURE 26 : RESIDENTIAL UNITS ON GUY PLACE

Planning was sent to all tenants. Of the sixteen occupied units located on Guy Place, fourteen households returned the survey completed.

An analysis of the returned surveys indicates that all of the units on Guy Place are either two-bedroom or three-bedroom. All of the units are rental. Rents for two-bedroom units range from $75.00 to $325.00, median rent is $275.00. Rents for three bedroom units range from $300.00 to $600.00, median rent is between $325.00 and $400.00 per month.

A temporary residential shelter for 30-40 seafarers is located in the Apostleship of the Sea, within the proposed Subarea Two. Seafarers can stay on the premises for a maximum of a week at a time.

3) Fiscal Factors

A breakdown of property value and property tax revenue for the Plan area by subarea is shown in Table 4 below (The 1981-82 tax rate was $1.19 per $100 assessed valuation, with assessed valuation being equivalent to 100% of fair market value).[7] It is followed by Table 5 showing the distribution of property tax revenues from the project area in 1981-1982.

TABLE 4
ASSESSED PROPERTY VALUE AND PROPERTY TAX REVENUE* BY SUBAREA**

	Parcels Entirely in Sub. 1	Parcels Split between Sub. 1/Sub. 2	Parcels Entirely in Sub. 2	Parcels Split between Sub. 2/Sub. 3	Parcels Entirely in Sub. 3
Property Value	$3,430,000	$460,000	$8,640,000	$14,780,000	$4,830,000
Property Tax Revenue	40,000	5,000	102,800	175,900	$57,500

* Numbers are rounded
** Assessed values of parcels in Subarea Three does not include parcels in public ownership or parcels owned by utility companies. Parcels not included are: Block 3749/lot 61; Block 3767/lots 1, 3, 4, 5; Block 3768; Block 3769/lots 1 and 2.

TABLE 5
DISTRIBUTION OF PROPERTY TAX REVENUE FROM PROJECT AREA IN 1981-1982*

Agency	Ad Valorem Tax Rate	Revenues					
		Percent	Sub. 1	Sub. 1/2	Sub 2	Sub. 2/3	Sub. 3
City and County of	$0.945	79.4	$32,400	$4,370	$ 81,600	$139,700	$45,700
S.F. Unified School District	0.142	11.9	4,850	650	12,200	20,900	6,840
S.F. Community College District	0.025	2.1	820	120	2,160	3,690	1,210
Bay Area Air Quality Management District	0.002	.2	80	10	200	350	120
BART	0.076	6.4	2,610	350	6,580	11,300	3,680
Total	$1.190	100.0	$40,800	$5,500	$102,800	$175,900	$57,500

* Numbers are rounded

The City incurs costs in serving the existing buildings. Police, fire, and general government expenditures are supported primarily by the City's General Fund. Most street maintenance, street improvement and traffic control costs are supported by other revenue sources such as fines, and federal and state aid.

NOTES - EMPLOYMENT, HOUSING AND FISCAL FACTORS

1) This figure is based on results from a standardized employment survey developed for Rincon Hill by the City Planning Department in 1982. Site surveys, and the telephone directory were used to determine the names and locations of businesses in Rincon Hill. Businesses were contacted by phone to answer the questionnaire. Only three known businesses were not reached. Not included are unoccupied buildings or the PG&E substation which operates 24 hours a day with zero employees on its premises. Results from the survey are on file and available for public review at Office of Environmental Review, 450 McAllister Street, San Francisco, CA 94102

2) This figure includes the total number of employees on parcels which are split between Subarea Two and Three.

3) 1983 State of California, Department of Finance, Population Research Unit, Population and Housing Estimates, April 19, 1983.

4) Changes in the San Francisco Housing Inventory, 1980, Department of City Planning

5) 1970 Census, CNT^2 Tape, Bureau of the Census, Table 30

6) 1980 Census, STF1-A Tape, Bureau of the Census, Table 25

7) Assessed values of parcels in Subarea One and Two does not include parcels in public ownership (Block 3745; 3746; 3749/lot 57; 3767/lot 5), nor do they include parcels owned by Pacific Gas and Electric (Block 3748/lots 1, 3, 4, 5, 29). Utility companies are assessed by the State Board of Equalization for their entire servicing area within a city or county. While the assessed value of land is recorded for each parcel owned by a utilities company, the improvements made on each parcel are not recorded by parcel. Consequently the total assessed value of PG&E's parcels in Subarea Two cannot be determined readily.

E. Transportation Setting

Traffic

The project area is framed by interchanges of the Bay Bridge (I-80), the James Lick (I-80/US 101) and Embarcadero (SR 480) Freeways, and San Francisco Bay. The streets network in the Rincon Hill Plan area serves local traffic as well as traffic to and from these freeways.

In addition to serving freeway-linked through traffic, the Plan area blocks are connected by the local street network to the Downtown, waterfront and South of Market areas to serve city through traffic. According to the Transportation Element of the San Francisco Comprehensive Plan (revised and adopted, June 1982),[1] portions of First, Fremont, Harrison and Folsom streets within the project area are designated as Primary Vehicular streets. These specific streets are designated to carry traffic "into and out of the downtown area, chiefly to and from the parking belts for automobiles." Specific Rincon Hill streets (Folsom, Fremont and First) serve as important links to freeway-based vehicle trips. Table 7, page 57 provides a summary of street characteristics in the vicinity of the Plan area. A description of the Rincon Hill project street network is provided below:

Folsom Street operates with Howard Street as a one-way couplet connecting the South of Market area with the Mission District. There is an on-ramp to the northbound Embarcadero Freeway at Beale Street and a southbound off-ramp at Fremont Street. Congestion occurs at First Street during the P.M. peak hour.

Harrison Street is used primarily for access to the Bay Bridge on-ramps at Essex Street and First Street. Congestion occurs on the approaches to the on-ramps during the evening peak period.

Bryant Street provides access to the High Occupancy Vehicle (HOV) Bay Bridge on-ramp at Sterling Street. Queuing occurs at the ramp entrance during the P.M. peak period. A west-bound HOV lane is provided from Beale Street to the Sterling on-ramp.

Second Street connects the Financial District with the China Basin area and is used by several major Muni bus routes. Many vehicles use Second Street to access the Bay Bridge on-ramps at Essex Street and Sterling Street. As a result, some congestion occurs at Harrison Street and at Bryant Street durings the evening peak hour.

First Street is a major access route to the Bay Bridge from downtown. Freeway traffic queues from Harrison Street to Folsom Street during the P.M. peak period (1-2 hours).

Fremont Street provides access to downtown from three freeway off-ramps. Southbound Embarcadero Freeway traffic exits at Folsom Street. Traffic from the Bay Bridge can exit at Harrison Street or from the Embarcadero Freeway between Folsom Street and Howard Street. The latter off-ramp is north of the project area and is the most heavily used.

Beale Street is a local street with 90 degree parking stalls and truck activity south of Folsom Street. There is an on-ramp to the northbound Embarcadero Freeway at the Folsom Street intersection but most vehicles use Folsom Street to access the ramp.

Main Street is a local street with truck loading areas and diagonal parking south of Folsom Street.

Spear Street is a local street with truck loading areas and diagonal parking.

Steuart Street is a local street with truck loading areas and 90 degree parking.

The Embarcadero is the major through route along the waterfront from China Basin to Fisherman's Whart. A pedestrian promenade is located along the east side of the Embarcadero from Harrison Street north to the Ferry Building. South of Harrison Street the Bay side is used for access to the piers and parking. The Embarcadero carries heavy peak hour traffic volumes (2,200 vph) near the Rincon Hill area without congestion.

TABLE 7
RINCON HILL STREET CHARACTERISTICS

Street	Function	Lanes	Direction	Classification
Folsom	Arterial	4	One-way E	PVS, TPS, PCBR
Harrison	Fwy Acc	4	Two-way EW	PVS
Bryant	Local	2	One-way E	
Second	Arterial	2	Two-way NS	TPS, POS, PCBR
First	Fwy Acc	4	One-way S	PVS
Fremont	Fwy Acc	4	One-way N	PVS
Beale	Local	2	One-way S	
Main	Local	2	One-way N	
Spear	Local	2	One-way S	
Steuart	Local	2	Two-way NS	TPS
The Embarcadero	Arterial	4	Two-way NS	PVS, TPS

KEY

Fwy Acc = Freeway Access Route
PVS = Primary Vehicular Street
TPS = Transit Preferential Street
POS = Pedestrian Oriented Street
PCBR = Preferred Commuter Bicycle Route

All above street classifications are as defined in the Transportation Element (June 1982) of the San Francisco Comprehensive Plan.

The project area is one and one-half blocks south of the Downtown Core Automobile Control Area. As described in the Transportation Element[2], this is the intensely populated area of the downtown for which the impacts of private commuter vehicle use should be minimized to allow more efficient means of access. Overall the Downtown Transportation Plan also calls for restrictions on long-term parking within the downtown, and for the location of new long-term parking facilities in areas peripheral to the downtown commercial district to substitute for long-term parking eliminated within the core. The Downtown Transportation Plan calls for the Rincon Hill Plan area to contain a portion of the "parking belt" designated for peripheral parking facilities.

Regional transit service terminating near the project area is available via BART and AC Transit, SamTrans, Golden Gate Transit accessed from the Transbay Terminal. Plan area blocks are a five to ten minute walk from the TransBay Terminal, and Market Street BART stations. The Southern Pacific Caltrain Commuter Terminal, located at Fourth and Townsend, is several blocks south and west of the project area, approximately a ten minute walk. In addition, commuter service to outlying East Bay locations is available at nearby locations, provided by Greyhound Buslines and Fairfield Area Rapid Transit (FART).

The project area is presently not well served by existing Muni transit service. Muni provides no direct service to the Rincon Hill project blocks, but five Muni lines are within a block of the project area. Most of Muni's lines operate in the Market and Mission Street corridors near the project area (approximately a ten to fifteen minute walk from most portions of project area blocks).

Within the project area currently there is little pedestrian activity. This limited activity is generally accessory to on-street visitor and customer parking or off-site employee parking. There are minor amounts of pedestrian through traffic originating in the project area with destinations to other locations nearby, such as commercial parking within the Rincon Hill area serving the greater downtown.

NOTES - TRANSPORTATION

1. San Francisco Department of City Planning, The Plan for Transportation, Transportation Element of the Comprehensive Plan of the City and County of San Francisco (adopted by the San Francisco City Planning Commission June 30, 1982). Primary Vehicular streets are defined as major routes for automobile and truck traffic into and out of the downtown area; for automobiles, chiefly to and from the parking belts.

2. Policies of the Transportation Element that relate specifically to the downtown area are contained in the chapter entitled "Downtown Transportation Plan," on pages 39 through 48.

F. Air Quality Setting

San Francisco's air quality, in general, is the least degraded of all the developed portions of the Bay Area. Because of the prevailing westerly and southwesterly winds, San Francisco is more a generator of its own air quality problems, especially carbon monoxide (CO) and total suspended particulates (TSP), and a contributor to those problems in other parts of the Bay Area, especially ozone (O_3), than a recipient of pollutants from elsewhere.

The Bay Area Air Quality Management District (BAAQMD) operates an air quality monitoring station about two miles south of the site at 900 23rd Street. A three year summary of the data collected, and the corresponding ambient air quality standards, are shown in Appendix C, page C-1. These data show occasional excesses of the CO and TSP standards. In 1982, the eight-hour standard for CO was exceeded once and the 24-hour TSP standard exceeded three times. The one-hour CO standard was never exceeded. (A more stringenet one-hour CO standard went into effect January 15, 1983.) The only air pollutant to exceed standards in 1980 and 1981 was TSP; the 24-hour standard was exceeded six times in 1980 and once in 1981.

Highest annual pollutant concentrations in San Francisco, while exhibiting fluctuations due to variations in meteorology, have shown an overall improvement during the 1971-1982 period. No similar trend in the annual number of violations is evident although such occurrences are infrequent (six a year or fewer).

Emissions from motor vehicles are the largest source of CO, hydrocarbons (HC), TSP and nitrogen oxides (NOx) in San Francisco, while power-plant fuel combustion is the largest source of sulfur oxides (SOx).[1]

The nine-county San Francisco Bay air basin is designated by the California Air Resources Board (ARB) as a nonattainment area for O_3 and CO. (Nonattainment means the federal ambient air quality standards for these pollutants have been violated within the past two to three years.) As required by the federal Clean Air Act Amendments of 1977, a regional Air Quality Plan has been adopted that establishes control strategies (stationary and mobile source emission controls and transportation improvements) to attain federal and state standards for these pollutants by 1987.[2] The BAAQMD, Metropolitan Transportation Commission (MTC) and ARB have primary responsiblity for the implementation of these strategies.

Because of proximity to the Bay Bridge and Embarcadero Freeway, Rincon Hill itself is exposed to CO and TSP related to traffic on these major roadways. The elevation of the freeways tends to minimize build up of carbon monoxide. Monitoring of carbon monoxide "hot spots" by the BAAQMD at 100 Harrision (Harrison between Spear and Main) indicated this site within Rincon Hill was not substantially worse than other downtown locations, or the 23rd Street station. Monitoring results are summarized in Table 8, page 60. However,

exposure to curbside emission levels could increase with closer proximity to freeway or bridge ramps because of slow moving vehicle queues.

TABLE 8
MAXIMUM CARBON MONOXIDE VALUES
AT
100 HARRISON 1980-81

	MAXIMUM CARBON MONOXIDE VALUES (ppm)	
	1-Hour Average	8-Hour Average
1980 - 1981:		
100 Harrison, 1st floor	13	7.75
100 Harrison, 5th floor	10	5.62
Federal Standard (max)	35	9.0
State Standard (max)	20	9.0

ppm=parts per million

SOURCES: ABAG, Air Quality Planning Program, Air Quality Technical Memo 33 and 40, Berkeley, CA, June 1980 and January 1982.

NOTES - AIR QUALITY

1) California Air Resources Board (ARB) 1979, Emission Inventory, 1976.

2) Association of Bay Area Governments (ABAG), 1982 Bay Area Air Quality Plan, September, 1982.

G. Noise Setting

As is typical of downtown San Francisco, the noise environment of the project area is dominated by vehicular traffic noise. Due to the enclosure of the project area by freeways, on and off ramps and the Bay Bridge, Rincon Hill experiences a high level of noise. Acoustical measurements from sites adjacent to the project vicinity are included in the Rincon Point-South Beach, Final EIR (EE80.267, November 5, 1980), pages. 96-97. This report is available for public review at the Office of Environmental Review, 5th Floor, 450 McAllister Street, and is hereby incorporated by reference into this EIR pursuant to California Environmental Quality Act (CEQA) guidelines, California Administrative Code, Title 14, Section 15150.

Additional acoustical measurements were taken at locations adjacent to the project area for the preparation of the Spear and Howard office building EIR, on March 17, 1981. Site One, near Steuart and Howard, was on top of an existing parking garage about 30 feet above the Embarcadero Freeway and about 100 feet from the center of the freeway. Site Two, was near Steuart and Howard at ground level. The noise exposure at Site One was an Ldn of 73dB, while Site Two on ground level the noise exposure was an Ldn of 66dB. These data indicate that noise levels are higher overlooking the freeway than at ground level where the freeway structure itself shields traffic noise.

The City of San Francisco has adopted the day/night average noise level (Ldn) to describe community noise environments. The Ldn is a single-number noise rating used to describe the average noise level over a 24-hour period.

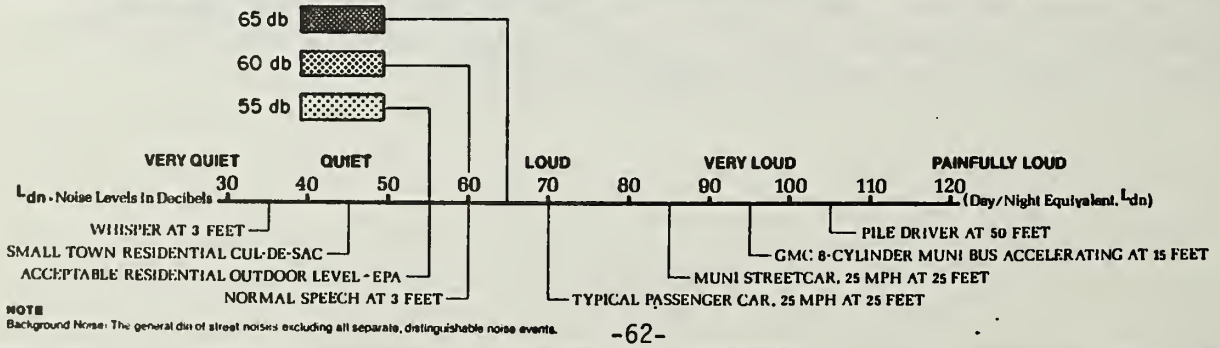
The Environmental Protection Element of the San Francisco Comprehensive Plan (adopted September 19, 1974) indicates that background noise levels are at about 65 and dB, and that day-night noise levels (Ldn) for major thoroughfares within the project area are as follow (See Figure 27 and 28, pages):

80 dB -- Interstate 80 (Bay Bridge)
80 dB -- Embarcadero freeway off ramp
70 dB -- Folsom Street
70 dB -- Harrison Street
70 dB -- Main between Folsom and Harrison
70 dB -- First between Folsom and Harrison

The noise contours stated above are based on maximum conditions not expected to be exceeded within 50 feet from the center of the road. They are higher than normally expected to occur.

BACKGROUND NOISE LEVELS - 1974

FIGURE 27 : BACKGROUND NOISE LEVELS



NOTE
Background Noise: The general din of street noises excluding all separate, distinguishable noise events.

THOROUGHFARE NOISE LEVELS • 1974

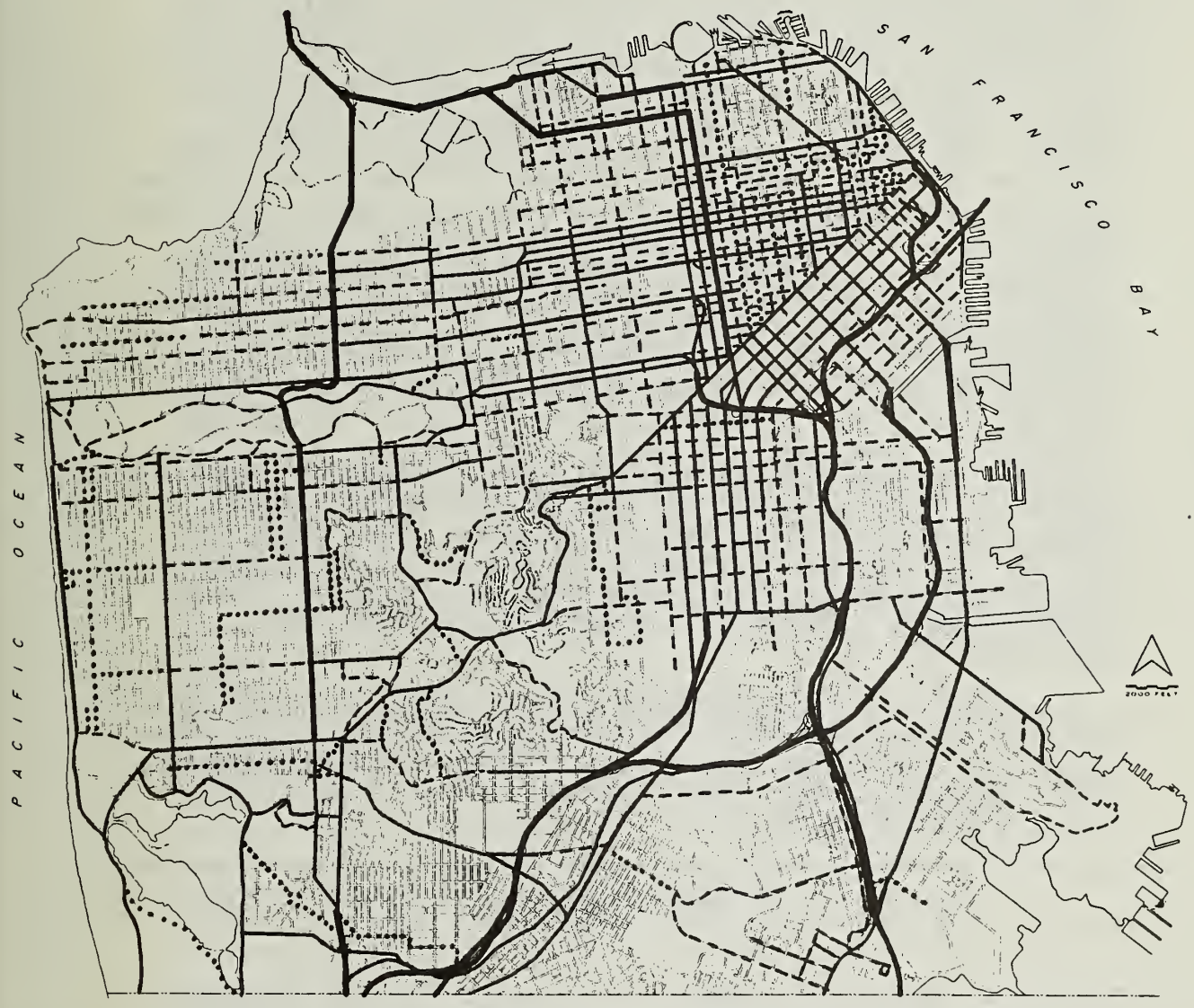
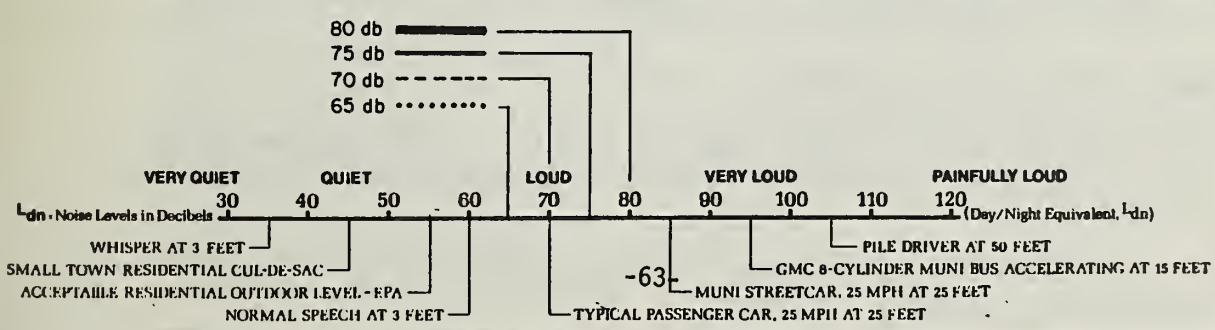


FIGURE 28 : THOROUGHFARE NOISE LEVELS



H. Energy Setting

Electricity and natural gas are provided to San Francisco by Pacific Gas and Electric Company (PG&E). New demands for electricity in northern California will be met primarily from coal, nuclear, and hydroelectric sources. Cogeneration and additional geothermal power development will also be used to supplement existing supplies.[1] Among the major new power plants expected by PG&E are the Diablo Canyon nuclear plant and the Helms Pump Storage hydroelectric plant.[2] PG&E also anticipates increased purchases of electricity from other utilities. This power is expected to come primarily from surpluses generated by hydroelectric and nuclear plants in Washington State.[3] PG&E has long-term agreements with southern California utilities (California Power pool Agreement) and Pacific Northwest utilities (Pacific Northwest - Southwest Intertie) for energy pooling, exchange, and purchase that will be used in part to meet future peak-period demand.[4] PG&E also expects to use cogeneration (i.e., production of electricity from waste heat generated by industrial processes) and wind turbine generators to help meet future demand.

The City and County of San Francisco presently generates sufficient electricity for its own municipal uses through the Hetch Hetchy System. The power is distributed through PG&E. Power beyond that which the city uses is first supplied to the Turlock and Modesto Irrigation Districts; and, if excess power remains, it can then be sold to assigned customers and transported through the PG&E distribution system.[5]

Electricity is presently provided to the project area by two radial electrical feeders from PG&E's Potrero Substation. Gas to the project area is provided through a low pressure system in underground mains located within the project area. Neither systems are presently operating at capacity.[6]

NOTES - ENERGY

1) Pacific Gas and Electric Company, 1982, Forecast of the Demand for Electricity within the Pacific Gas and Electric Company Service Area.

2) Jim Davidson, Senior Civil Engineer, Pacific Gas and Electric Company; telephone communication, May 21, 1982.

3) Elmer Hall, Siting Department, Pacific Gas and Electric Company; telephone communication, March 3, 1982.

4) Moody's Public Utility Manual, 1980

5) Ted Chung, Senior Electrical Engineer, Public Utilities Commission, Hetch Hetchy Water and Power Division, telephone communication, June 13, 1983.

6) George Pavana, Industrial Power Engineer, PG&E, telephone conversation, November 15, 1982.

I. Geology/Seismicity/Hydrology Setting

1) Geology

The Rincon Hill project is on sloping land, rising from the northeast along Steuart Street between Folsom and Bryant Streets, and peaking southwest at First and Harrison Streets. Elevation ranges from zero feet San Francisco Datum[1] on the portion of land nearest the San Francisco Bay to approximately 107 feet at the southern portion of Rincon Hill where the land peaks. (See Figure 29, Street elevations page 66)

The site is underlain by Franciscan Formation bedrock.[2] Site borings in the eastern portion of the project area indicate that bedrock has been reached between fifteen feet above sea level and seventy-one feet below sea level.[3] In the southern half of the project area, the Franciscan Formation bedrock is exposed at the surface. Overlaying the bedrock in the northern portion of the project area are 1) slope debris and ravine fill consisting of unsorted rock fragments, gravel, sand, silt, and clay in various proportions; and 2) artificial fill which is mostly dune sand but includes silt, clay, broken rock and construction debris. The artificial fill overlies bay mud in the northwestern and eastern portions of Rincon Hill where, prior to 1850, these portions were underwater within Yerba Buena Cove of San Francisco Bay. No borings have been made within the project area to determine the depths of various subsurface geologic materials. However, it is estimated that while no bay mud exists in the southern portion of the project area where the land is exposed bedrock, up to approximately 50 feet of upper bay mud may be under portions of the project area closest to the Bay.[4] Artificial fill, clays, sand and silt also increase in thickness closer to the Bay. Bay mud and artificial fill are compressible and unstable; the materials have low bearing capacities and are unsuitable as a foundation base. Large buildings constructed over bay muds are supported by piles driven into the next layer of geologic material, the dense clayey sand. The underlying old Bay clays are still (non-plastic) and capable of bearing heavy loads.[5]

2) Seismicity

There are no active faults within the project area; however, there is an inactive fault atop Rincon Hill.[6] No known ground failures are directly associated with this fault.[7] There are four major fault zones in the San Francisco Bay Area, shown in Figure 30, page 67 which are capable of causing strong ground motion at the proposed project site. The San Andreas Fault and the Seal Cove Fault are located off the Pacific shore approximately 9 miles and 14 miles, respectively, from the project site. The Hayward and the Calaveras Faults are approximately 10 and 20 miles east of the site, respectively. Each of these systems is considered active and is capable of generating a major earthquake (greater than magnitude six on the Richter scale)[8] during the projected useful lifetime of a newly constructed structure (at least 50 years).

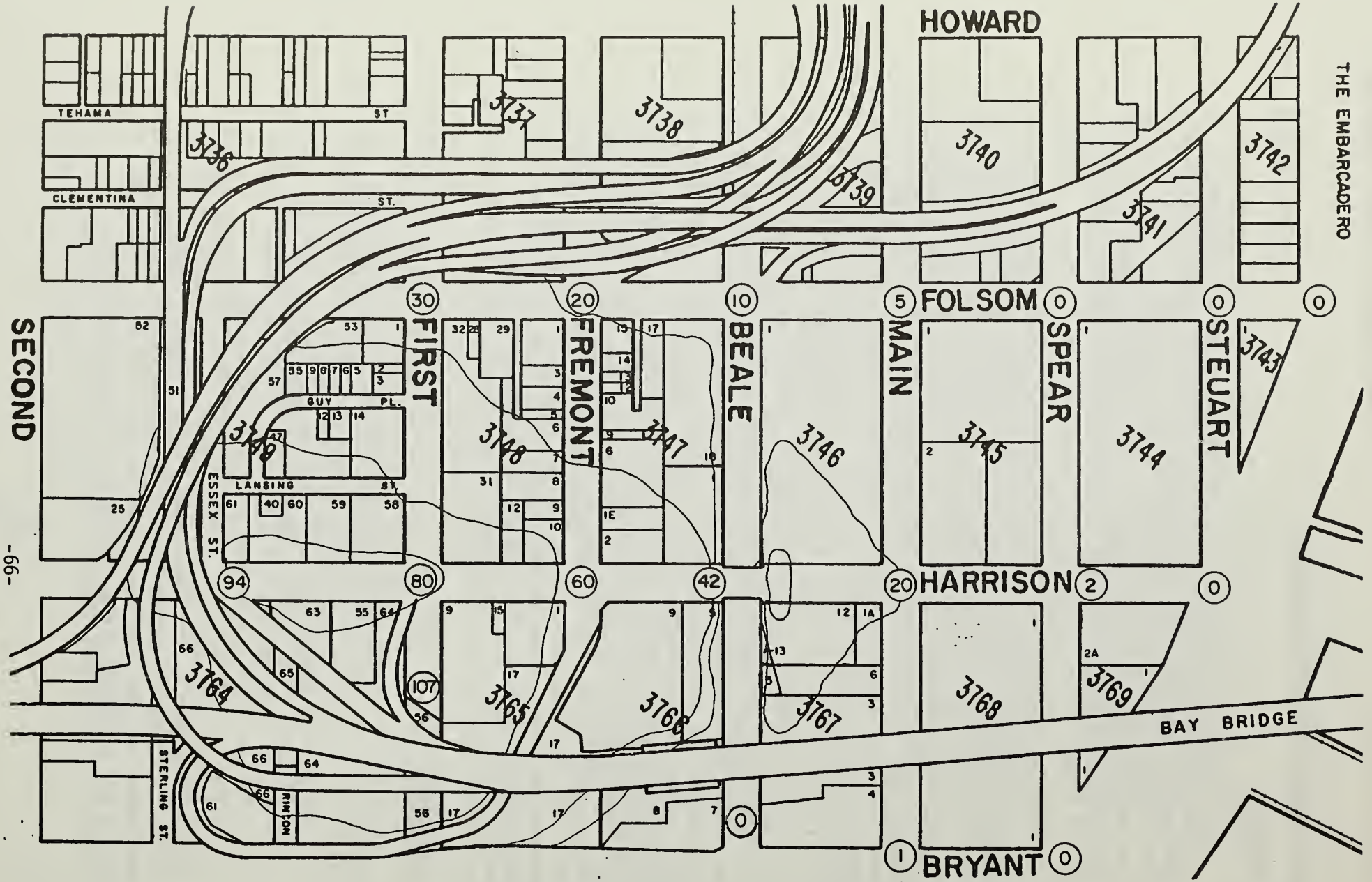
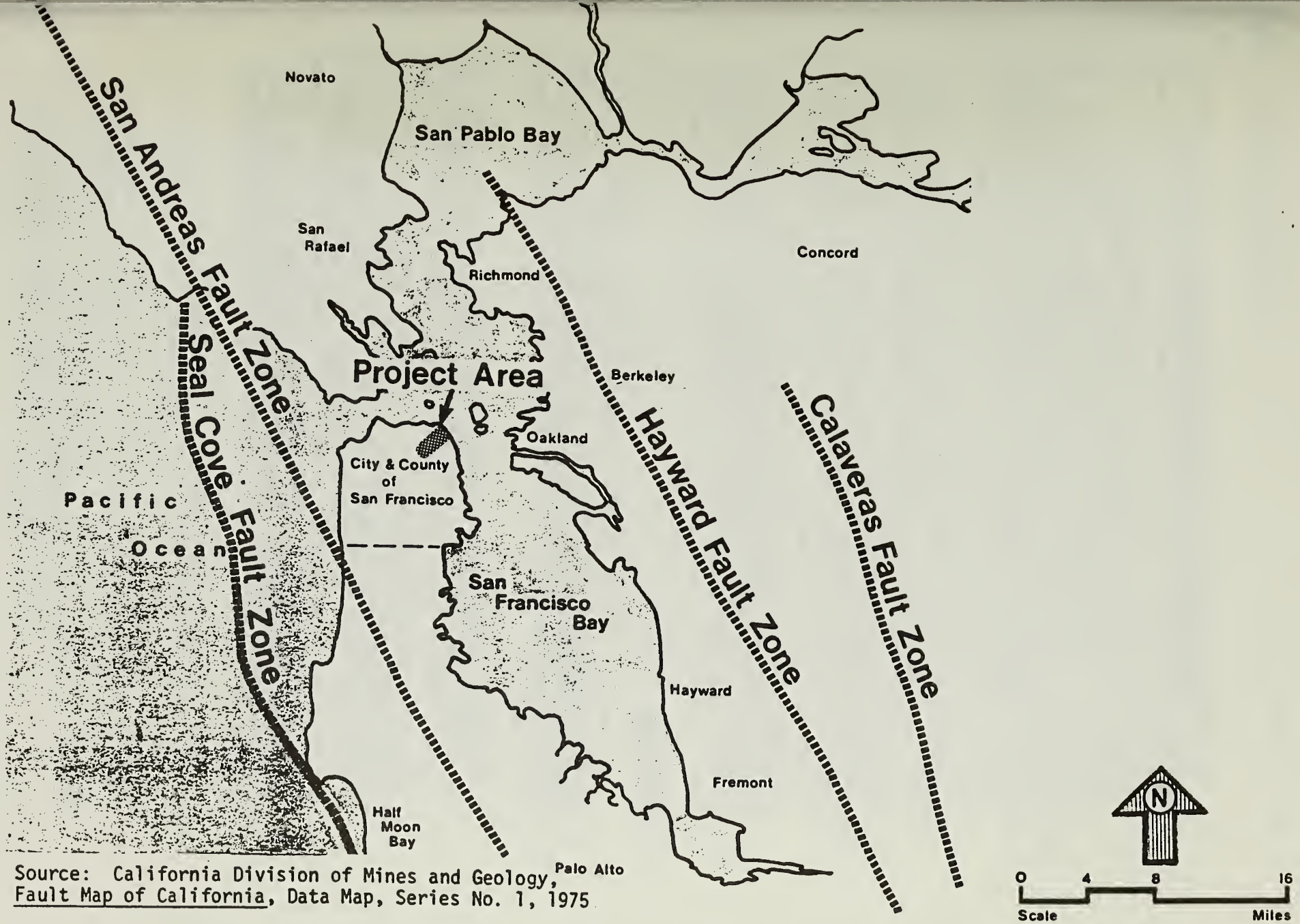


FIGURE 29 : STREET ELEVATIONS

◯ = STREET ELEVATION, MEASURED IN SAN FRANCISCO DATUM (AFTER GRADING).



Source: California Division of Mines and Geology, Fault Map of California, Data Map, Series No. 1, 1975

FIGURE 20 - ACTIVE FAULT ZONES IN THE SAN FRANCISCO-BAY AREA

According to estimates in the San Francisco Safety Investigation, Geologic Evaluation,[9] potential earthquake hazards within the project area include "very strong" and "strong" groundshaking. Very strong groundshaking (defined as earthquake shaking causing much cracking of masonry with occasional collapse of structures and lurching of frame buildings on weak underpinnings) could occur in the north, east and west peripheral portions of Rincon Hill where the subsurface material is fill. Strong groundshaking would be expected in the remainder of Rincon Hill which includes bedrock outcroppings. Strong groundshaking is defined as earthquake shaking causing general fall of brick chimneys and cracking of masonry and brickwork.[9]

Liquefaction (the sudden, earthquake-induced transformation of loose granular materials saturated with water to a fluid-like state similar to quicksand) would potentially affect the same portions of Rincon Hill where strong groundshaking could occur (north, east and west peripheral portions).[10] Liquefaction can result in lateral movements and loss of basal support of structures which do not rest on caissons or piles. Earthquake-induced subsidence (the sudden settlement of the ground surface) and ground lurching toward San Francisco Bay (the sudden lateral movement of the ground towards an unsupported surface) could also be expected in the portions of the project area potentially subject to liquefaction.[11] Subsidence and ground lurching can damage foundations, utility lines and roadways.

3) **Hydrology**

The project area is located in the northeastern waterfront. No lakes, springs or watercourses are located in the project area. The low-lying portion of the project under natural drainage conditions would receive the runoff from the higher areas in the southern portion of Rincon Hill.

The lower portion of the project area adjacent to the northeastern waterfront is within the estimated run-up of the 100-year and 500-year tsunami. Tsunami are a series of sea waves created by an earthquake, a coastal or submarine landslide or a volcanic eruption at some distance from the point of run-up. A 500-year tsunami is the largest tsunami that could be expected in 500 years, or the tsunami with a one in 500 chance of occurrence in a given year. The 500-year tsunami is estimated to run-up to about elevation 11.3 feet San Francisco Datum (SFD), which itself is 8.7 feet above mean sea level (MSL) at the Golden Gate. The effects of tsunami are dampened as the waves move through the Bay; the 500-year tsunami would run-up to about 1.3 feet (SFD).[12]

GEOLOGY, SEISMICITY AND HYDROLOGY NOTES

1) The San Francisco Datum is approximately 8.6 feet above mean sea level.

2) Franciscan formation rocks are typical of the northern California Coast Ranges and underlie the hills of San Francisco. They consist of a mixture of dark colored muddy sediment, red, green and brown cherts and lava flows of black basalt, all material laid down on the floor of the Pacific Ocean about 100 million years ago. Cherts are rocks formed by deposits of silica containing microorganisms, which are transformed into hard, waxy or porcelain-like rocks. See Roadside Geology of Northern California, David D, Alt and Donald H. Hyndman, Mountain Press Publishing Company, Missoula, Montana, 1975.

3) Schlocker, Julius, Geology of the San Francisco North Quadrangle California, U.S. Geological Survey Professional Paper 782, Washington, D.C. 1974.

4) Lee and Proszker, "Bay Mud Development and Related Structural Foundations", Geologic and Engineering Aspects of San Francisco Bay Fill, California Division of Mines and Geology, Special Report 97, San Francisco, May 1969.

5) Schlocker, J., M.G. Bonilla, and D.H. Radbruch, 1958, Geology of the San Francisco North Quadrangle, California, U.S. Geological Survey Miscellaneous Geologic Investigations Map 1-272.

6) Schlocker, Julius, Geology of the San Francisco Northern Quadrangle, California, U.S. Geological Survey Professional Paper 782, 1974, Plate 1, scale 1:24,000.

7) Youd, T.L. and S.N. Hoose, Historic Ground Failures in Northern California Triggered by Earthquakes, U.S. Geological Survey Professional Paper 993, Washington, D.C. 1978, 177 pages.

8) Richter scale: a logarithmic scale developed in 1935 by Charles Richter to measure earthquake magnitude by the energy released, as opposed to earthquake intensity as determined by effects on people, structures and earth materials.

9) Blume, J.A. and Associates, 1974, San Francisco Seismic Safety Evaluation prepared for the San Francisco Department of City Planning, Figure 3.

10) Blume, J. A and Associates, 1974, San Francisco Seismic Safety Evaluation, Figure 5.

11) Blume, J.A. and Associates, 1974, San Francisco Seismic Safety Evaluation, Figure 10.

12) Rincon Point-South Beach Redevelopment Plan, Final EIR, EE80.267, certification date: November 5, 1980, page 113.

J. Community Services Setting

1) Police

The area is under the jurisdiction of the San Francisco Police Department's Southern District, located in the Hall of Justice at 850 Bryant Street. The project area is currently patrolled by a radio car twenty-four hours a day. Presently the crime rate is low for the Southern Police District. Crimes committed are mainly larceny and petty theft.[1]

2) Fire

There are nine street fire alarm boxes in the proposed project area. Four stations provide services to the project area in response to calls from these boxes:[2]

- Station 35, at Pier 22-1/2 (2-1/2 minute response time)
- Station 1, at 416 Jessie Street (4 minute response time)
- Station 8, at 36 Bluxome Street (3 to 3-1/2 minute response time)
- Station 13, at 530 Sansome Street (4 minute response time)

A description of downtown fire protection services is included in the 201 Spear Street Final EIR (EE80.337, Certification Date May 20, 1982, pages 45-47). This report is available for public review at the Office of Environmental Review, 450 McAllister Street, and is hereby incorporated by reference into this EIR pursuant to Section 15150 of the California Environmental Quality Act (CEQA) guidelines. Information includes incidence of building fires and multiple alarm fires from 1960-1981, and compliance of new highrise structures in San Francisco with the life safety provisions of the San Francisco Building Code since 1975. San Francisco Fire Department statistical records indicate fewer building fires and reduction in greater alarms in 1980 compared to 1970.

3) Schools

The San Francisco Unified School District provides educational services at the elementary, intermediate and high school levels for San Francisco. There are two elementary schools within one mile of the Rincon Hill area: Bessie Carmichael at 55 Sherman Street and Commodore Stockton 950 Clay Street. There are no middle schools within one mile of Rincon Hill. The middle school which services this area is Potrero Hill Middle School at 655 De Haro Street. There are no high schools within one mile of the project area. Mission High School at 3750-18th Street services the area.

Like many urban school districts, San Francisco has been experiencing declining enrollments over the last decade. Total enrollment has dropped 23,000 students between 1970 and 1980.[3] A study prepared for the School District recommends leasing some excess school space for periods of 20-40 years, rather than completely closing schools as has been done in the past. This recommendation is based on findings that, while enrollments will continue to decline until about the year 1990 (possibly to as low as 44,000), the number of students will increase by the year 2000 to pre-1990 levels.[4]

4) **Parks and Recreation and Open Space**

There is presently no developed public open space in Rincon Hill. The closest open space to the project area is South Park, about two blocks south. Located three blocks to the northwest is Justin Herman Plaza and Park. The new pedestrian shoreline promenade running south from the Ferry Building adjoins Rincon Hill.

5) **Water Service**

San Francisco receives water from the Hetch Hetchy system through the San Andreas and Crystal Springs Reservoirs in San Mateo County. The project area is served by the University Mound Reservoir, which has a capacity of 141 million gallons. Current total water use in San Francisco averages about 89 million gallons per day (MGD)[5].

Water delivery to the project area is through underground water mains. An 8-inch diameter main is generally considered by the San Francisco Water and Fire Departments to be adequate for almost any development; 12-inch and 16-inch mains are preferred for water-intensive types of land uses.[5] Water service within the boundaries to the project area is provided on most streets by 6-inch, 8-inch, and 12-inch diameter mains.[6]

6) **Wastewater Service**

The City and County of San Francisco currently owns and operates three water pollution control plants (WPCP); the North Point, Southeast and Richmond-Sunset WPCPs. North Point WPCP currently serves the Rincon Hill area. However, the City is now expanding and upgrading sewage treatment facilities at the Southeast SPCP. After renovation is complete, the Southeast WPCP will handle all sewage flows from the east side of the city, except for a portion of the rainy weather flow to be treated at the North Point site. Presently, North Point WPCP has a maximum hydraulic capacity of 160 million gallons per day (MGD), with an average day weather flow of approximately 50 MGD. Southeast WPCP will have a maximum hydraulic capacity of 160 MGD and an average day weather capacity of 84MGD.[7]

7) Solid Waste

The Golden Gate Disposal Company serves the project area under contract to the City and County of San Francisco. In July 1982, after examining several potential alternate disposal sites, the City signed a five-year contract with Alameda County to use the Altamont Hills landfill beginning on November 1, 1983 and ending November 1, 1988.[8] Over the contract period about 2.7 million tons of San Francisco solid waste will be trucked the 54 miles to the landfill site. The Altamont Hills landfill provides a short-term solution for disposal of San Francisco's solid wastes. In response to the recognized need for a long-term solid waste disposal solution, the City is considering several sites for a Resource Recovery Facility where recyclable components of the waste stream could be removed for sale and the remainder burned to produce electricity from steam.[9], [10] In the November 1982 election Brisbane voters rejected a site on the Brisbane/San Francisco border. The City is continuing to examine potential sites for the Resource Recovery Facility.[9]

NOTES - COMMUNITY SERVICES

1) Paul Libert, Officer, Planning and Research, San Francisco Police Department, personal communication, 18 December 1981.

2) Ed Phipps, Chief Support Services, San Francisco Fire Department, telephone communication, 18 August 1982.

3) Residence Element of the Comprehensive Plan of the City and County of San Francisco certified April 1983, page 1.4.

4) Rincon Point-South Beach Redevelopment Plan Final EIR, 80.267, certified 5 November 1980, page 57.

5) Ibid, page 58.

6) San Francisco Water Department, Utility Maps, Northeastern Waterfront Survey Area, undated.

7) Francies, M., Cleanwater engineering, San Francisco Clean Water Program, letter communication, 12 January, 1982.

8) San Francisco County Solid Waste Management Plan Final Draft, September 8, 1982, page 12.

9) Ibid, pages 84-90.

10) Final Environmental Impact Report for Resource Conversion Center (State Clearinghouse No. SCH 79051401), prepared for the City of Brisbane, California, June 1980.

IV. ENVIRONMENTAL IMPACTS

An initial study of the proposed project was published May 20, 1983, and a determination was made that an Environmental Impact Report (EIR) was required. Issues that were considered to have no significant effect include: biology; and hazards. The initial study is incorporated herein as Appendix A, page A-1, and may be referred to for a discussion of these issues.

Not all of the impacts discussed in this section are physical environmental effects as defined by the California Environmental Quality Act (CEQA). Other impacts are included here for informational purposes only.

A subsection entitled "Project Variant" appears following specific impact categories. The "Project Variant" involves the development of Assessor Blocks 3745 and 3746, held in public ownership. The effects of this variant are discussed only where difference in impacts from the proposed project could occur.

As discussed in the Project Description section of this EIR, the impact analysis contained in this chapter examines what could happen assuming full build-out, although it is not anticipated that this level of development would occur within the forseeable future. In the past, actual development in San Francisco has seldom reached a level that represented maximum build-out permitted under the zoning controls; zoning regulation usually changes before an area even approaches full zoning build-out.

Assuming that no changes were made to the proposed Rincon Hill Plan and full build-out were realized, there still is no timeline to identify when this full build-out may occur. There is no past development information available for the Rincon Hill area that could provide a basis for forecasting a rate of development for the types of uses proposed in the Plan, since implementation of the Plan's policy would introduce new residential development in what has been an industrial area of the City roughly since the turn of the century.

Impacts are analyzed at full build-out with no time horizons established in order to provide an analysis of the worst case impacts. Impacts under full build-out are evaluated as an addition to City-wide cumulative impacts analyzed in the Downtown Plan Draft Environmental Impact Report (EE81.3), published by the Department of City Planning in March 1984.

The Downtown Plan EIR contains the only comprehensive analysis completed by the City that examines downtown growth with relation to its City-wide and regional effects. Its forecast time horizon of 2000 represents the furthest point into the future that can be evaluated reasonably, given the information that is available.

While the Downtown Plan EIR specifically evaluates impacts of growth in the C-3 (Downtown) Districts, it also contains selected analysis of non-specific growth outside the-C-3 Districts. The transportation projections have considered growth from both the C-3 Districts and from elsewhere in the City and the Bay Area at selected regional traffic and transit screenlines. This non-C-3 component includes the area south of Market Street of which Rincon Hill is a part.

A. Land Use Impacts

The major land use change which could result from the proposed plan would be a shift from industrial, commercial, office and social service uses to mixed-use residential/commercial development. Specific developers of the project area are not known at this time. However, the proposed plan, upon realization, could result in a mixed use development in Subareas One and Two containing housing, office, retail or personal services, open space, and a new east-west alley system between Folsom and Harrison Streets leading down to the waterfront from the top of Rincon Hill. Other uses permitted in these subareas include child care facilities, elementary schools, community facilities, public facilities and utilities.

The proposed Plan has no minimum or maximum building density and dwelling unit size and number. The building density of the proposed project would be governed by the Planning Code height, bulk and site coverage limitations and by criteria governing conditional use. Due to the generic nature of this project as a "plan" rather than a site specific development proposal, it is difficult to derive a single number indicating the potential number of dwelling units which could be accommodated in Rincon Hill.

An estimated range of 3,700 to 6,800 residential units could be constructed in Subareas One and Two at maximum build-out. The lower end of the range (3,700 units) is based on case study design for Rincon Hill and South Beach[1] applying a parking ratio of one space for every one unit. The upper end of the range is based on maximizing the number of housing units through application of the building bulk, height limit, and parking (at one space per four dwelling units) provisions in the Rincon Hill Special Use District. The 6,800 figure does not take into account minimum ventilation standards (air and light) required to be met in constructing liveable dwelling units. The figure establishes a maximum limit not expected to be reached. The build-out which would be more likely to occur would fall somewhere within the range in order to satisfy all pertinent provisions of the Planning and Building Codes and to optimize the units' marketability.

A build out of 3,700 units would result in 245 square feet of site area per unit; whereas, a build-out of 6,800 units would result in approximately 118 square feet of site area per unit. The greatest residential density currently permitted by the Planning Code is in the C-3 district where the maximum density ratio cannot exceed one dwelling unit for each 125 square feet of lot area. The next highest residential density currently permitted is one dwelling unit per 200 square feet of lot area. This is permitted in the RC-4 and RM-4 districts. The estimated density of new residential units which could be constructed in the Plan area (not including existing residential units to be preserved or sites which are encouraged for preservation of existing structures) ranges from a density greater than the maximum currently permitted by the Planning Code, to one which is less than that permitted in RC-4 or RM-4 districts.

At maximum build-out the new residential units would constitute a new residential community in San Francisco. Located in a non-residential area in the South of Market, the Plan at build-out would need a full range of neighborhood services to accommodate the new residential development. A maximum of 677,000 gross square feet to 931,000 gross square feet of commercial space could be developed in Subareas One and Two, of which some would be support services to the Rincon Hill residents. This range is based on a development ratio of one foot of commercial space for every six feet of residential space proposed in the Plan.

The upper range of maximum build-out could occur only if parcels of land were reassembled from their present sizes to take advantage of the maximum floor areas permitted by the proposed guidelines, and if towers above 105 feet in height were located on sites which could still meet the requirement that they be spaced 150 feet apart from each other within the same height district. Since the land in Rincon Hill is private, not public, land assembly would not be regulated. Realization of the Plan would probably occur incrementally as parcels are assembled for the large scale development and alleyway running through the project area. The development of each parcel of land within Subareas One and Two would affect the development of the remaining land in these subareas. This is especially the case regarding build-out of the towers above 105 feet in height. The Plan states minor exceptions to building bulk and site coverage controls may be granted.

Project Variant: Assessor Blocks 3745 and 3746 are under State and Federal ownership. They are presently zoned P (Public). The proposed Plan would include rezoning these blocks to mid-rise (Subarea Two) residential use. However, as long as they remain under public ownership and present buildings or new constructions are not leased out to the private sector for private purposes, the City would not have the authority to impose the rezoning on these parcels. Although the State and Federal controlling agencies are encouraged to abide by local zoning, they are not required to comply.

The proposed Plan would require at least one parking space for each four dwelling units, and no more than one parking space for each dwelling unit. Although the proposed Plan has no minimum or maximum building density and dwelling unit size and number, the number of parking spaces needed to market new housing may influence the size of the units upward, thus maximizing the number of parking spaces per unit by having larger but fewer units. The proposed Plan would also encourage the potential for shared parking between residential and commercial activities made possible through mixed-use development.

As the Plan area builds-out, the present uses not permitted in the proposed rezoning would become non-conforming uses with no termination dates. These uses could not expand their facilities or change to another use unless permitted under the provisions of the proposed Plan.

Although demolition is discouraged on specified sites in the Plan, displacement of existing uses could occur. (For further discussion of the Plan's impact on architecturally-rated buildings see Cultural and Historic Impacts, page 90). Sites not encouraged for preservation in the Plan could be built out over time. As parcels are privately assembled and mixed-use projects are developed in Subareas One and Two, existing vacant lots and parking lots would be built on, and buildings used for warehousing, manufacturing, office activities, and service activities (primarily for seafarers, uses include temporary shelter, outpatient health clinic, union hall, pension fund office) could be removed or converted to other uses.

Subarea Three of the proposed Plan would retain the present M-1 classification. The Plan does not propose to change the land use designation. Though the Plan proposes a revision in height limits (a reduction from 105 feet to 84 feet) for urban design purposes and would establish a standard commercial parking requirement of one space for every 1,000 square feet of commercial/industrial area, the developable floor area in this subarea would not be changed. The Rincon Hill Plan would allow commercial/industrial development activity to continue in Subarea Three as is has been occurring under existing zoning controls.

Comprehensive Plan: The Land Use Element of the Comprehensive (Master) Plan is designed as a guide to attain a balance between the social, cultural, economic and aesthetic values that make up San Francisco. However, the City's land use policy is not confined only to the Land Use Element. Many of its objectives, which are intentionally general, and the principles upon which they are based are developed and refined in the objectives and policies of other elements of the Master Plan. As a result, the elements must be considered collectively in order to obtain a complete outline of the City's land use policy.

The Residence Element contains a detailed outline of the City policy (and the background data that supports it) that specifically addresses residential land use in the City. San Francisco's need for additional housing has long been recognized and is reflected in several policies contained in the Residence Element: Objective One identifies ways in which the City's overall housing stock should be increased; Objective Two examines housing density and infill, and identifies areas where it is appropriate to encourage higher density ratios which would result in an increase in housing resources.

The Residence Element specifically identifies Rincon Hill as an opportunity area for mixed residential and commercial development.[2] While the Land Use Element currently shows Rincon Hill as an area designated for light industrial use, the Residence Element in Policy Two of Objective One recognizes there are existing industrial and commercial areas that are currently underutilized and are appropriate for residential use. The policy makes reference to the Map that identifies Rincon Hill as one of these opportunity areas. If the

proposed Plan were adopted, amendments to the Land Use Element would be required, to show Subareas One and Two of the Plan area as mixed use areas.

NOTES - LAND USE IMPACTS

1) Daniel Solomon and Associates, Case Studies for Rincon Hill 1981.

2) San Francisco Comprehensive Plan - Residence Element, Table 25, "Housing Opportunity Sites," (page 1.27) and Map A (page 1.29), April 1983.

B. Visual & Urban Design Impact

The change in land use proposed for Rincon Hill, as discussed in the Land Use impacts section, includes corresponding changes in the scale of development for Subareas One and Two. Upon full realization, the proposed plan area would be defined by tapered high-rises at the top of Rincon Hill within a proposed 360 to 400 foot maximum height limit.

The increase in height limits and the urban design/site planning requirements are proposed to maintain an urban skyline that follows the topography of the area. The urban design objectives of the proposed Plan reflect the same principles that are the basis for adopted objectives and policies of the Urban Design Element in the San Francisco Comprehensive Plan. Table 9 on page 81 contains a comparison between these two sets of objectives.

Building heights would be varied to avoid visually lining up or benching at a single level. The towers would be separated to reduce blocking of downtown views from the bridge. The mid-rise residential district would surround the high-rise district. Sculptured buildings within height limits ranging from 84 to 200 feet would step down towards the water from the high-rise zone. Minor deviations from the designated heights could be permitted to ease transitions between height and help to carry out intentions of height controls with respect to view protection and the appearance of the skyline. Figure 31, page 83 provides a conceptual view of the proposed build-out.

A proposed height limit from 84 feet on Blocks 3769, 3768, 3767, 3766, 3765 and 3764, and portions of Blocks 3744 and 3749 would apply to new development in the retained commercial/industrial district (Subarea 3). New development would be low to mid-rise stepping down to the waterfront from the proposed residential zones. New development on Blocks 3764, 3765 and 3766 within the proposed 84 foot height limit could potentially obstruct views of the Bay from new development on Guy and Lansing Streets (Block 3749), also in the proposed 84 foot height limit. Since the height limits of these Blocks would all be lowered from 105 feet to 84 feet, impacts associated with the proposed height limits would be less than those that could result under current limits. Existing buildings on these Blocks range from 40 to greater than 80 ft. The proposed 84-foot height limit therefore, could allow new structures or additions (provided they meet other appliable requirements of the Plan) that could cause impacts on views to and from the area.

Build-out of the proposed Plan would alter the San Francisco skyline, especially as viewed from the east. Development in the Rincon Hill area would block existing views of the Bay from lower development immediately to the west and south. Views from lower floors of the highrises to the north would be affected. Motorists viewing Rincon Hill development from the Bay Bridge and Embarcadero Freeway would see a skyline composed of residential towers and office

TABLE 9: RELATIONSHIP BETWEEN APPLICABLE URBAN DESIGN POLICIES OF THE COMPREHENSIVE PLAN* AND THE PROPOSED RINCON HILL PLAN OBJECTIVES

PROPOSED URBAN DESIGN OBJECTIVES	APPLICABLE URBAN DESIGN POLICIES OF C.P.
Objective 2: To capitalize on the unique qualities of Rincon Hill, specifically its sweeping views of the Bay, its proximity to downtown, and its relationship to the waterfront and the Bay.	Policies for Conservation: Policy 7: "Recognize and protect outstanding and unique areas that contribute in an extraordinary degree to San Francisco's visual form and character." (Page 25)
Objective 3: To respect the natural topography of the hill and follow the policies already established in the Urban Design Element which restrict height near the water and allow increased heights on the top of hills.	Policies for City Pattern Policy 1: "Recognize and protect major views in the City, with particular attention to those of open space and water." (Page 10)
Objective 4: To preserve views of the Bay and the Bay Bridge, among the most impressive in the region.	Policy 3: "Recognize that buildings, when seen together, produce a total effect that characterizes the city and its districts." (Page 10)
Objective 5: To maintain view corridors through height and bulk controls which promote tall, slender towers rather than bulky, massive buildings.	Policy for Major New Development Policy 1: Promote harmony in the visual relationships and transitions between new and older buildings.(page 36) Policy 5: "Relate the height of buildings to important attributes of the city pattern and to the height and character of existing development." (Page 36) Policy 6: "Relate the bulk of building to the prevailing scale of development to avoid an overwhelming or dominating appearance in new construction." (Page 37)

TABLE 9: RELATIONSHIP BETWEEN APPLICABLE URBAN DESIGN POLICIES OF THE COMPREHENSIVE PLAN* AND THE PROPOSED RINCON HILL PLAN OBJECTIVES
(Continued)

PROPOSED URBAN DESIGN OBJECTIVES	APPLICABLE URBAN DESIGN POLICIES OF C.P.
Objective 6: To reduce the present industrial scale of the streets by creating a circulation network through interior blocks, creating a street scale comparable to those in existing residential areas elsewhere in the city.	Policies for Neighborhood Environment Policy 4: "Design walkways and parking facilities to minimize danger to pedestrians." (Page 55) Policy 11: "Make use of street space and other unused public areas for recreation." (Page 57) Policy 13: "Improve pedestrian areas by providing human scale and interest. (Page 57)
Objective 7: To reduce the widths of Main, Spear and Beale Street to create additional developable area as well as new pedestrian space.	
Objective 9: To encourage a human scale streetscape with activities and design features at pedestrian eye level.	Policies for Conservation Policy 9: "Review proposals for the giving up of street areas in terms of all the public values that streets afford." (Page 28)

* Department of City Planning, San Francisco Comprehensive (Master) Plan - Urban Design Element, 1971. (Page references are shown in parenthesis.) Design Element, 1971.

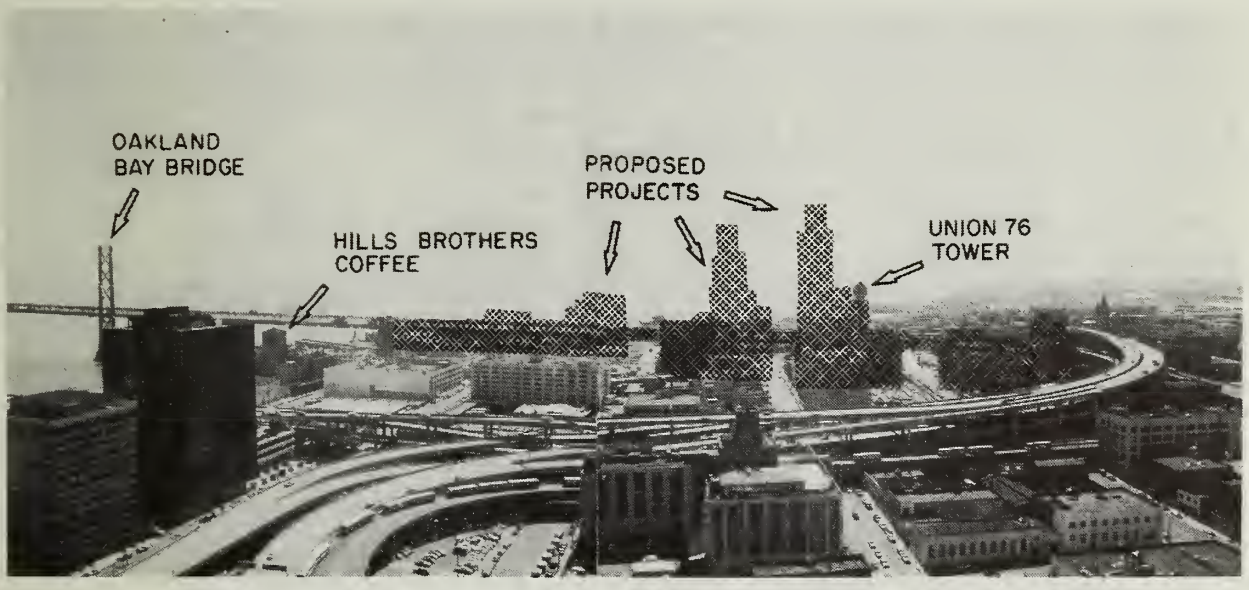


FIGURE 31 : VIEW OF SKYLINE(FACING EAST)
WITH PROPOSED PROJECT BUILD OUT

buildings of lesser height to the south of the area presently containing highrise development, with views of the downtown and the city beyond.

The proposed Plan would encourage the retention of several buildings of architectural and/or cultural merit to be interpersed with new development. The Sailor's Union of the Pacific is depicted in the plan as "one of the city's fine examples of the social realist/streamline modern period." It abuts the proposed high-rise district, and was intentionally excluded from the zone to prevent its demolition. The existing residential units on Guy Place are noted in the Plan as worthy of retention. The portion of the Hills Brothers building which is brick-faced is encouraged for preservation as well as the Joseph Magnin Warehouse, Hathaway Warehouse, the Union Oil Company Building and the Coffin-Reddington Building.

An east-west alley system, 36 feet in width, would be created through the middle of Blocks 3744 to 3748 between Harrison and Folsom Streets. These alleys would establish a pedestrian network, linking the existing Guy and Lansing Street alleys (Block 3749) at the top of Rincon Hill to the Bay. Low-rise housing and retail activity would line the alleys and conceal parking garages of the high-rises and mid-rises from public view. The alleys would be constructed at ground level with the possible exception of the creation of a wide pedestrian overpass over Fremont Street, linking the residential uses on either side of the street. The overpass could be up to 70 feet wide and developed as open space and could include minor low structures incidental to open space use. If the overpass were to be constructed, developers of the alley on Assessor's Block 3748 bounded by Fremont, Folsom, Beale and Harrison would be required to provide a public stair linking the upper Fremont Street section of the alley with the lower Beale Street section.

In addition to the development of an alleyway, street narrowing of Beale, Main and Spear Streets would be encouraged. The public sidewalk would be widened and privately developed with lighting, decorative paving, seating and landscaping in order to provide pedestrian corridors to the downtown. In addition or instead of sidewalk widening, street narrowing could result in potential increases of developable land.

Concealed parking garages would be encouraged in the proposed plan as indicated by the low-rise housing requirement along the alley. Two sites on which intercept parking garages are recommended are on the portions of the two blocks bounded by Fremont, Harrison, Main, to the underside of the Bay Bridge in a height district of 84 feet. The top of the garage roofs are recommended for recreational use in order to prevent the mid-rise residential development from overlooking open parking garages. The garages themselves would have to be enclosed in order to conceal parked cars from the bottom floors of adjacent mid-rises fronting Harrison Street. An illustrative perspective of development sites in the project area is provided in Figure 32, pages 88-89.

1) Wind and Shadows

The street grid pattern in the project area runs roughly southwest-northeast and southeast-northwest. This results in relative shelter from prevailing westerly winds in San Francisco. The project, however, would be exposed to southwest and northwest winds, which channel along the streets in the Plan area.

Changes in local wind patterns would occur in the project area as a result of new development. Variation in street-level wind acceleration is generally related to exposure of a structure to the prevailing wind direction, and the extent and uniformity of the windward facade.

In general, taller buildings intercept a greater volume (and momentum) of wind; resulting in a greater potential for wind acceleration at street-level. The tallest buildings possible under the proposed Plan (with Conditional Use Authorization) would be on Assessor's Block 3747 and 3748, where maximum building heights are proposed at 360 to 400 feet.

Under most circumstances, the greater the area of a facade, the greater the typical wind accelerations at street-level. Relatively large, uniform facades typically result in greater wind accelerations than do narrow or complex facades with numerous setbacks. The presence of other structures located upwind of a new development proposal can break up winds before being intercepted by the project facade. However, new development proposals that are built next to several other tall structures (particularly those without setbacks) may further impact pedestrian circulation by creating a channeling effect, further accelerating street-level winds.

Building height, shape and bulk of specific development proposals would dictate to what extent wind acceleration impacts would be created in the Rincon Hill Plan area. Because the analysis of this Plan does not contemplate any specific development proposal, a projection of wind impacts is not possible. Specific development proposals would be subject to individual review for wind impacts as they are submitted.

Shadow patterns within the City are determined by the location of the sun in the sky, the degree and type of cloud cover or fog, and the geometry of nearby buildings. In San Francisco, and throughout the northern hemisphere, the length of shadows cast by buildings is greatest in late fall and early winter, when the sun is lowest in the sky, and least in late spring and early summer, when the sun is highest in the sky. The occurrence of clouds, of course, affects sunlight at ground level. The effect of clouds is often expressed as the "percent of possible sunshine." Generally, sunshine percentage is at a maximum in spring and in September. It is reduced in winter by clouds associated with storms, and in summer by fog and stratus clouds.

As with wind impacts, sun shading impacts from development allowed under the proposed Plan cannot be estimated without specific proposals including the architectural design details for new structures. As there is no major open space (i.e. parks and plazas) existing in the project area, shadow analysis of future development proposals should include impacts on important open space resources already created as a part of the construction of other projects, that may have been approved earlier.

If buildings were constructed at height limits proposed in the Plan, open space areas such as the Beale Street pedestrian corridor and the eastwest alley system would be shadowed by the surrounding buildings. The pedestrian overpass proposed for construction over Fremont Street would have shadows cast on it from proposed high-rise development on Block 3748.

Other areas proposed for open space include the rooftops of new intercept parking structures on Blocks 3766 and 3767, and the area surrounding the Bay Bridge anchorage on Block 3766, and on portions of AB 3768. Shadows from the Bay Bridge would be cast on these areas to some extent all year round since they are north of the structure.

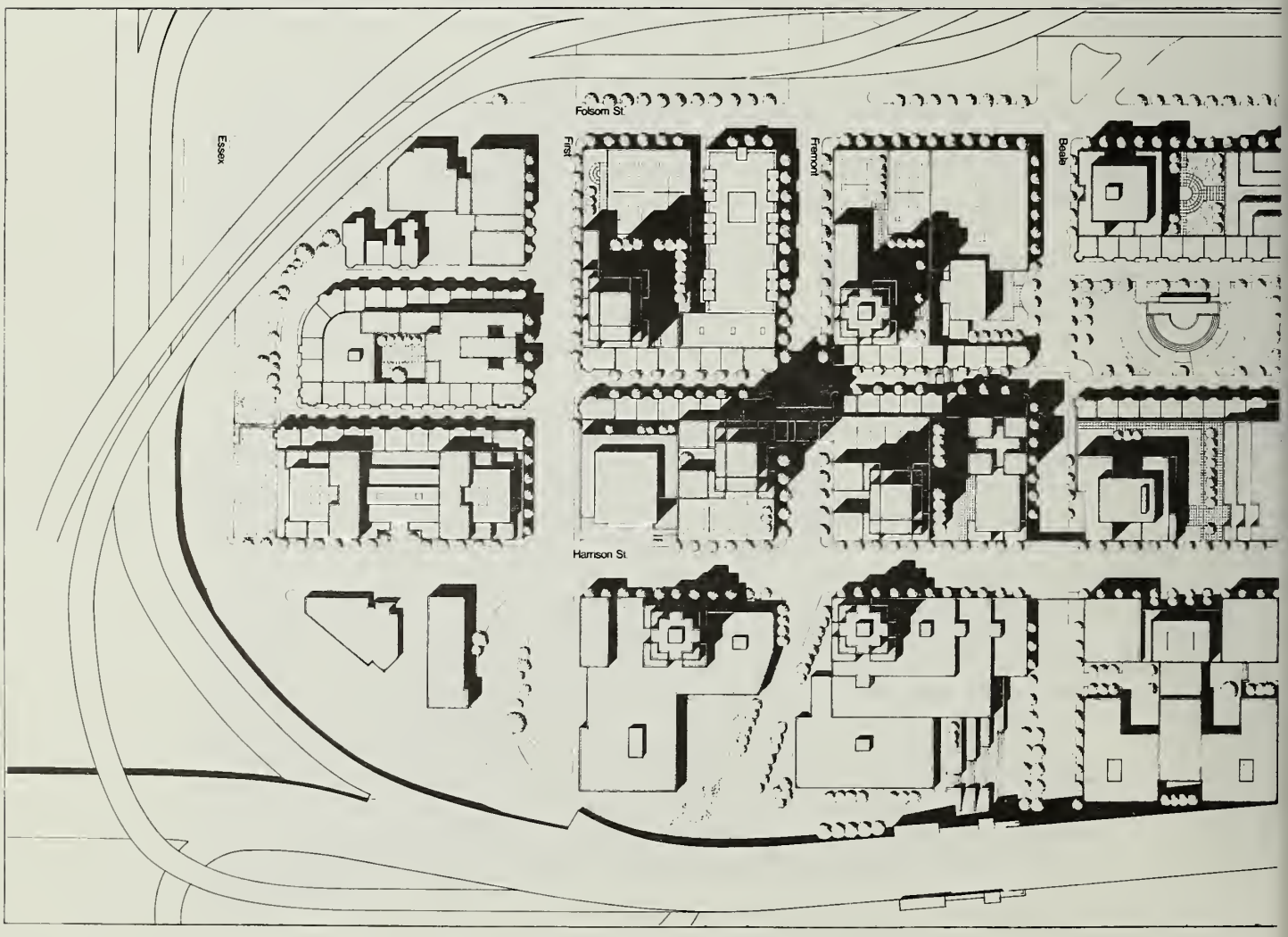
Full realization of the proposed project is dependent on a number of factors including parcel assembly, development and construction. The height limits, site coverage guidelines and alley system requirements designated in the proposed Plan reflect maximum development potential which could be achieved through implementation of the plan. The deviation from what is permissible cannot be estimated . Integration of existing buildings with the proposed plan would be affected by incremental development. This in turn would shape the evolving skyline and visual quality of the proposed project area.

Project Variant: The Assessor's Blocks, 3745 and 3746, in public ownership would be encouraged to conform to the design of the Plan if retained as public land; however, it is not required. State and Federal agencies voluntarily make an effort to comply with local controls although they do not need issuance of a building permit from local planning agencies prior to construction on public land. Technically, they could develop without following the building bulk and height limits. If they rehabilitated the present structures, the buildings would be bulkier than the proposed bulk limits would permit if newly constructed on private land. The buildings heights would be lower than the proposed project's maximum height limit. If the State and Federal government constructed new buildings, the buildings could be taller than permitted by the Proposed plan. The design of new buildings on these blocks for the Federal and State could deviate from the proposed Plan's intent to create a skyline of slender towers stepping down from the proposed high-rises to the waterfront.

The Federal and State Blocks would not have to conform to the pedestrian alleyway requirement. If the remaining blocks (3744, 3747 and 3748) have the alleyways developed, pedestrian circulation from the alleyways on Block 3744 and 3747 would have to be rerouted to Folsom or Harrison Streets in order to permit people to walk through the project area via the alleyway system.

ILLUSTRATIVE PLAN

This drawing shows a possible result if all the potential development sites in the district are built to the requirements and standards outlined in the Plan. The illustration shows a cluster of residential high-rises on top of the Hill with the alley lined with row houses cutting through the long blocks from Harrison to Folsom Streets.



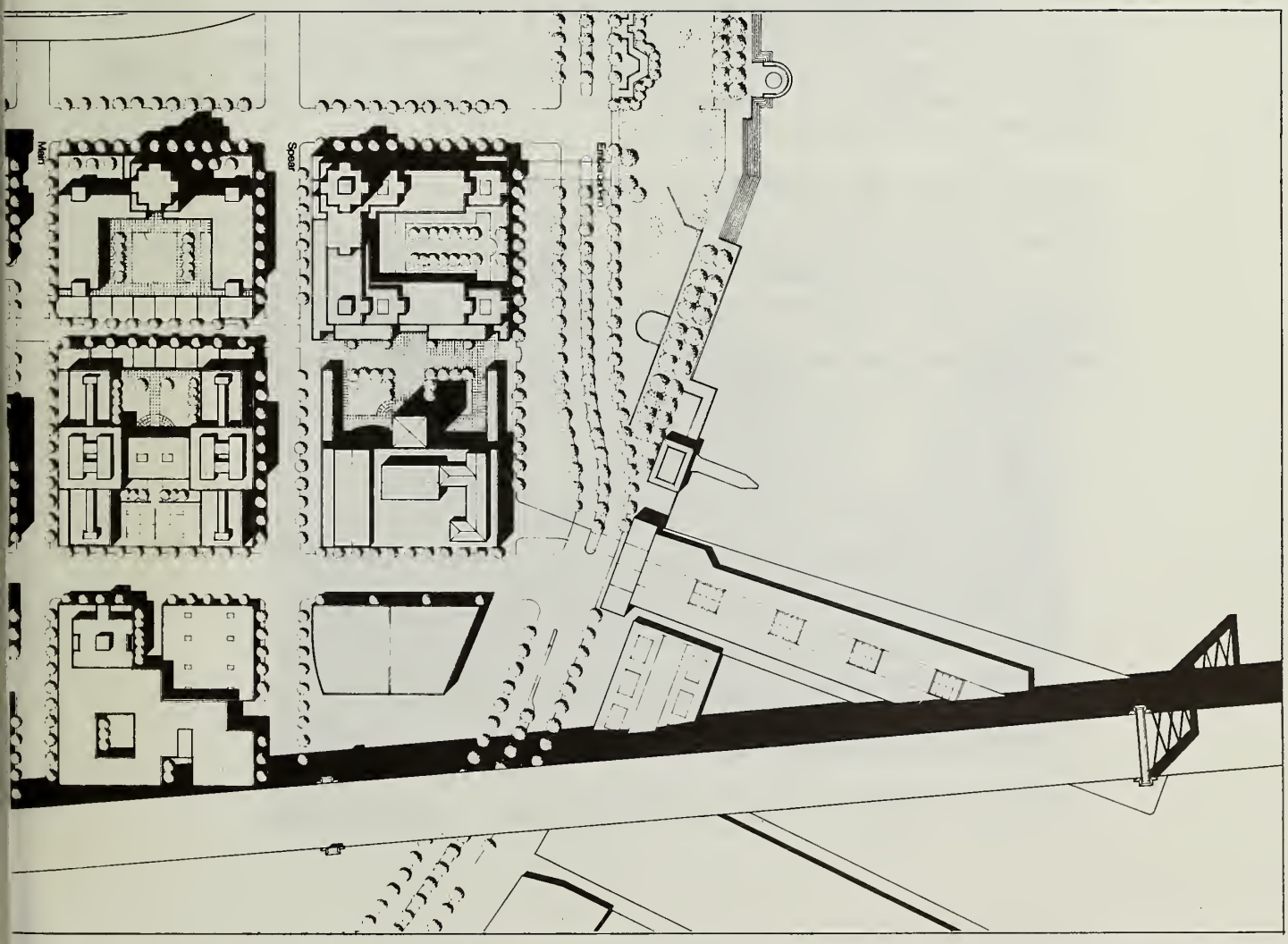


FIGURE 32 : RINCON HILL ILLUSTRATIVE PLAN

C. Cultural and Historic Impacts

Several building sites within the project area are listed in the San Francisco listing of Architecturally and/or Historically Important Buildings. Eight of these building sites are specified in the Plan for preservation. These include the residential units on Guy Place, the Sailors Union of the Pacific, Klockars Blacksmith Shop, Hills Brothers, Union Oil Company Building, Joseph Magnin Warehouse, the Hathaway Warehouse and the Coffin-Reddington Building. The Plan calls for the preservation of residential units on Guy Place in their present form or replacement by new structures conforming to the requirements for alley housing. Consequently, the demolition of the units could occur in keeping with the Plan as long as their replacement was consistent with the new requirements. Figures 33-39, pages 91-94 depict all the buildings proposed for preservation, with the exception of the dwelling units on Guy Place.

The Klockars Blacksmith is recognized in the Plan as a building which is" architecturally undistinguished" but has received landmark designation because it is one of the last of many "smiths" in the South of Market district from the early 20th Century. The Plan calls for its preservation, but not necessarily on its present site. The Plan states the building should be moved elsewhere in the general vicinity if necessary to make appropriate use of the site and adjacent sites for housing. No relocation site or assistance is identified in the Plan to facilitate the move.

The Plan does not identify for preservation any of the other architecturally rated buildings in the project area. Mixed-use residential buildings would replace architecturally rated buildings of "1" at 347 and 355 Fremont and "0" at 401 Folsom if the Plan were realized fully. Realization of the Plan could uncover potential historical and cultural artifacts. Individual sites proposed for development within the project area would have to be evaluated as projects are submitted for review.

FIGURE 33 : HATHAWAY BUILDING

FIGURE 34 : KLOCKARS BLACKSMITH SHOP

FIGURE 35 : JOSEPH MAGNIN WAREHOUSE

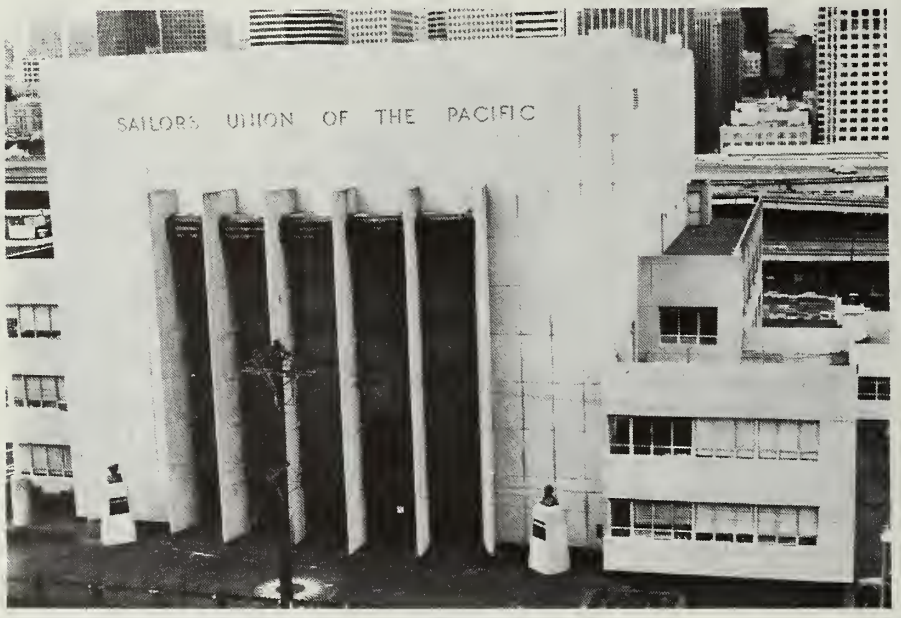


FIGURE 36 : SAILORS UNION OF THE PACIFIC

FIGURE 37 : HILLS BROTHERS COFFEE

FIGURE 38 : UNION OIL COMPANY BUILDING

FIGURE 39 : COFFIN-REDDINGTON BUILDING

D. Employment, Housing and Fiscal Impacts

1) Population and Employment

New jobs created under the proposed Plan would likely be in offices, retail, light industrial and personal services, community and recreational facilities, and in the public sector (schools, facilities and utilities). These jobs, as a result of new development, could displace existing jobs.

Because it is not possible to know what the proportion of each activity would be, standard employee density ratios have been applied to the higher end of the commercial (non-residential) development potential range of about 5 million square feet. Employment estimates for Subareas One and Two (approximately 1 million square feet) are calculated assuming an office space ratio of one employee per 275 square feet; calculations for the commercial/industrial Subarea Three assume a ratio of one employee per 350 square feet.[1] Approximately 15,100 potential new employees could be generated by full build-out, which would represent a net increase of about 13,400 employees in the area.

Not all of the employees would seek housing in the city. Some of the employees may be already working in San Francisco and could live within or outside of the city. If all commercial build-out consisted of office space that was similar to the downtown C-3 district, new employees in Rincon Hill could create a demand for about 4,440 dwelling units in San Francisco under the Office Housing Production Program (OHPP) formula.[2] The OHPP formula is the basis for City Planning Commission policy of requiring housing to offset demand created by office development, which is required for development proposals of 50,000 gross square feet or greater. Another formula recognized by the City, though not adopted policy, calculates that housing demand would be for 2,140 to 4,280 dwelling units in the City, based on an estimated 15% to 30% of the office employees that would desire housing in the City.[3]

These two formulas provide an estimate range of housing demand which are specific to office workers in the downtown. Whether a similar level of demand would be generated by generally lower cost office space that could locate in the Rincon Hill area is not known. The analysis presented here is conservative by calculating housing demand on the assumption that all commercial development would be office space. Such a scenario, which would still be less than the proposed Plan's maximum residential development potential of 6,800 units, would be highly improbable.

2) Housing

High density residential development would be encouraged by the proposed Plan since it allows density calculations to be based on height, bulk and lot coverage limitations as opposed to lot size only. This method would allow a greater quantity of units within a building envelope than presently permitted by the City Planning

Code. Under the proposed Plan, the size of the unit would be determined by its marketability. If small units were marketable, the Plan would facilitate their development by removing legislative barriers. Presently, housing density standards preclude buildings from being constructed with a high density of compact units since the standards are expressed in terms of the number of dwelling units permitted in proportion to the size of the site. Realization of the proposed Plan could alter the residential development of the area population by increasing the supply of housing by between 3,700-6,800 units. It should be noted that this range is based on an average unit size of 750-800 square feet. If all of the build-out were to be of small units (350-500 square feet) this range would be higher. Similarly, there could be large family size units (1000+ sq. ft.) built under the proposed plan. However, for purposes of calculating maximum build-out, it has been assumed that the majority of the units would be 750 - 800 square feet.

The price of housing to be developed in Rincon Hill under the proposed Plan cannot be determined until actual development is proposed. A stagnant market may remain or shift, and accordingly would influence housing production and cost on Rincon Hill. The proposed Plan does not require any specified type of income mix to be constructed in the project area; however, there are incentives built into the proposed Plan which are designed to encourage the development of affordable housing.

The Plan would permit a developer to build to the maximum height (See Figure 11, page 20) only if a specified percentage of below market-rate units would be built as part of the project. Without the inclusion of these units, a developer would be allowed to build approximately 20% less than the maximum height permitted. (See Figure 10, page 19.) The difference between the "as-of-right" height limit and the maximum height limit constitutes a density bonus, and also would provide greater view potential for upper level units.

Allowing small compact units within a building envelope could have the effect of lowering the unit cost. If such units were available for ownership, the lower prices and high density would possibly allow more singles and couples without children to own homes than at present . This type of housing would probably not accommodate people who are in need of low or moderate income family-sized housing.

Build-out of the proposed Plan would be subject to the city's existing subdivision ordinance which requires that new condominium projects of 50 or more units provide 10% of the units at low/moderate income if subsidies are available. This provision is essentially inoperable at the present time because of the lack of available subsidies.

The time frame for build-out of the project area has not been determined since there are no known developers attached to the

project. Pressures on office developers to satisfy their housing requirements through the Office Housing Production Program (OHPP) could stimulate housing production on Rincon Hill by providing a large housing opportunity site.

The construction of 3,700-6,800 residential units at maximum build-out in Subareas One and Two could satisfy a portion of the demand for housing in San Francisco generated by potential/ existing residents. This could divert some of the housing demand from established neighborhoods to Rincon Hill, and thus relieve the pressure on existing housing. The amount of pressure the project could alleviate would depend on whether the new housing matched preferences for size of unit, price, location, tenure, etc.

Project Variant: The federal and state governments could decide not to build residential development on Blocks 3745 and 3746. This could eliminate up to 2,400 dwelling units from the maximum residential buildout not expected to be exceeded in the proposed project. Using the low range of total housing units, a corresponding lesser number of units could be eliminated.

3) Fiscal Impacts

a. Revenues

Assessed Valuation and Property Tax Based on replacement costs, the minimum fair market value of the proposed buildout of Subareas One and Two would be approximately $374 million to 411 million in 1981 dollars.[4] Assuming that the property would be assessed on the basis of full replacement costs, the assessment value of the build-out could also be about $374 million to $411 million. Total annual property taxes would be about $3,740,000 to $4,110,000 at 1% full value allowed under Proposition 13, plus an additional levy for repayment of existing bonds previously approved by the electorate (the current total rate for the 1981-1982 fiscal year is $1.19 times 1% of assessed value) leading to a total that could range from $3,740,000 - $4,110,000 to $4,450,000 - $4,890,000.[5] It is not known how the property taxes would be distributed since the time frame for build-out of the project area is undetermined; however, applying the 1981-1982 rate, the San Francisco General Fund could receive from $2,970,000 - $3,260,000 to $3,530,000 - $3,880,000 from the full build-out of Subareas One and Two (79.3% of the total composite property tax revenues).[6] Subtracting the market value of the existing land, improvements and personal property within Subareas One and Two which total about $27,300,000, the net addition of the San Francisco tax base would be about $346,700,000 - $383,700,000.[7] The net increase over existing composite property tax revenues to San Francisco would be between $2,697,000 - $2,970,000 to $2,987,000 - $3,260,000.[8]

As mandated by Proposition 13, property taxes can increase by only 2% annually, with reassessment occurring if property is sold or improved.

Other Revenues

Business, sales tax, and utility users tax would accrue to the city from the proposed project; these revenues cannot be quantified because the specific types of commercial uses, breakdown of employee earnings, the resident income and consumption patterns, and possible retail sales cannot be determined at this time. Revenues from business tax, sales tax, and utility users tax are not limited by statute and would increase with inflation.

b. Costs

The cost of the project would depend on several factors. Whether the Plan would build out to its maximum permissible height and bulk limitations, and whether it would do so all at once would influence the cost of the project. Another variable is the timing of Plan build-out in relation to other new projects in the city. This is because at various levels of cumulative development, service thresholds are met that would require capital expenditures.

Existing police protection in the project area would not be adequate to serve the area upon full build-out. The Police Department would not prepare to increase personnel or equipment until calls start increasing, i.e. after construction and occupancy.[9] The development of Rincon-Point South Beach, a redevelopment project adjacent to the proposed project, would require additional police services upon build-out. The Police Department estimates it would require a new patrol unit for Rincon Point-South Beach at a 1980 dollar cost of $77,000 per year; if a new patrol unit is required, costs would increase by $5,500 plus $.23 per mile.[10] Increases in cost for additional police services in the proposed project area would probably be similar.

The Fire Department indicates that it would be able to provide adequate service to the project area, with the exception of a major disaster, fire, earthquake. Cumulative effect with Plan build-out could increase the demand for fire protection services.[11] If, upon Plan build-out, fire protection services are inadequate, the Fire Department would evaluate what further steps need to be taken to insure fire protection. It is estimated that the costs of a new company in 1980 figures would be $90,000 for a new engine and $750,000 annually for personnel.[12]

Additional marginal service costs attributable to individual landowners as a result of Plan build-out cannot be reliably

quantified. Costs for added police and fire services would be financed by the city's ad valorem tax account, which receives property, payroll and business taxes. Annual property, payroll and business tax revenues generated by Plan build-out would be expected to cover additional costs for these services. If the build-out tax revenues would not be enough to cover the additional services, the result would be an increased load on existing citywide service levels.

The number of school age children to reside in the project area cannot be determined. San Francisco's schools have been experiencing declining enrollment in recent years. Communication with the San Francisco Unified School District indicates that all potential new enrollments from the project area could be accommodated either at nearby schools or by providing bus transportation to other schools.[13] The San Francisco School District leases its buses and does not incur capital costs for buses. Residential, commercial and industrial property tax revenues from project build-out would each increase the proportion of total school expenditures financed by the property tax.

NOTES -- POPULATION AND EMPLOYMENT, HOUSING & FISCAL IMPACTS

1) The employment density ratios are derived from the consultant report, Growth Management Alternative for Downtown San Francisco, Volume 1: Text, prepared by Environmental Science Associates, Inc., May 1983, page IV, C.5.

2) Dean Macris, Planning Director, Department of City Planning, January 22, 1982, Memorandum; the housing formula is as follows:

$$\frac{\text{Gross sq. ft. of office space}}{\text{250 sq. ft. per employee}} \times \frac{\text{.40 workers moving to SF}}{\text{1.8 workers per household}} = \text{units of hsg.}$$

3) The formula is from a study undertaken by Recht-Hausrath and Associates. The text and the analytic methods used in the study can be found in Appendix C of the 101 Montgomery Street Final EIR, EE80.26, certified by the San Francisco Planning Commission May 7, 1981, pages 289-329. The formula is as follows:

$$\frac{\text{Gross sq. ft. of office space}}{\text{250 sq. ft. per employee}} \times \frac{\text{.15 to .3 workers moving to SF}}{\text{1.4 workers per household}} = \text{units of hsg.}$$

4) Median costs per square foot were obtained from Building Construction Cost Data 1982, 40th Annual Edition, 1981, Robert Snow Means Company, Inc. Highrise apartments for San Francisco were estimated to cost

(sq. ft.) $55.88; high-rise office $77.55; retail $36.57; parking garages $22.63. Mixed-use building types were not listed; therefore, the cost per square foot by use was multiplied by the gross square footage of proposed buildout of Subareas One and Two, given a one-to-one parking ratio (one parking space per one dwelling unit). Since it is not known whether a mixed use buildout would include retail or office spaces, a range for replacement cost was estimated based on commercial space in mixed use buildout being either 100% retail or 100% office. Worth noting is that cost per square foot only includes hard construction costs. Not included are costs of land, financing, developers' profit, architectural fees.

5) $3,740,000 - $4,450,000 is based on a 1% to $1.19 tax rate on mixed use property (residential plus retail)

   $4,110,000 - $4,890,000 is based on 1% to $1.19 tax rate on mixed-use property (residential plus office)

6) $2,970,000 = 79.3% of $3,740,000; $3,260,000 = 79.3% of $4,110,000; $3,530,000 = 79.3% of $4,450,600; $3,880,000 = 79.3% of $4,890,900

7) $374,000,000 - $27,300,000 = $346,700,000; $411,000,000 - $27,300,000 = $383,700,000.

8) $2,697,000 = $2,970,000 - $273,000; $2,987,000 = $3,260,000 - $273,000; $3,205,000 = $3,530,000 - $325,000; $3,555,000 = $3,880,000 - $325,000

9) Captain Forny, Southern Police District, personal, communication, 21 December, 1981.

10) Rincon Point-South Beach Redevelopment Plan, Final EIR, certified November 5, 1980, EE80.267, page 53.

11) Sullivan, Joseph A., Chief Support Services, San Francisco Fire Department, letter communication, 22 December, 1981.

12) Rincon Point South Beach Redevelopment Plan, Final EIR, certification date, 5 November, 1980, page 53.

13) Walker, Robert, Student Assignment Office, San Francisco Unified School District, letter communication, 6 January, 1982.

E. Transportation Impacts

Transportation impact analysis for the Rincon Hill Plan is based on full build-out and provides an account of worst-case impacts, which would not be expected to occur until after the year 2000. (As indicated in the discussion on page 74 , it is not possible to identify a timeline by which full build-out would occur.)

Specific trip generation and distribution rates have been employed for each of the different land uses as part of the proposed Rincon Hill Plan. At full build-out, the Plan could include up to 6,800 dwelling units in Subareas One and Two, with an accompanying commercial development potential of approximately 1 million square feet. Fifteen percent of this commercial floor area is assumed to be used for retail activity; the remainder is assumed to be used for office space. In Subarea Three, about 4 million square feet of commercial and industrial floor area could be developed at full build-out. The trip calculations also include those generated by intercept parking facilities on Blocks 3766 and 3767, which are proposed in the Plan.

This section analyzes the combined transportation impacts generated by full Rincon Hill Plan build-out and the cumulative transportation impacts at year 2000 evaluated in the Downtown Plan EIR. The Downtown Plan EIR cumulative analysis evaluates the combined effects of trips associated with identified downtown (C-3) employment projections, and projected traffic volumes ("through traffic") from elsewhere in the City and Bay Area (non C-3 travel).[1] The Downtown Plan EIR provides an analysis based on growth forecasts that have been extended as far into the future as is reasonable given the amount of current information available. It is not possible to forecast with any certainty additional downtown area growth that may occur between 2000 and a later point in time at which full build-out of the Rincon Hill Plan might occur. This combined analysis of worst-case impacts is a conservative evaluation that does not assume any improvements in City services or infrastructure that could be in place between 2000 and the time of full Plan build-out. By evaluating impacts of full build-out as a separate addition to the impacts associated with cumulative development evaluated in the Downtown Plan EIR, the analysis of the Rincon Hill Plan EIR incorporates another conservative assumption; no adjustment is made to account for impacts of Rincon Hill development before 2000 that would thus realize a portion of the non C-3 growth forecast analyzed in the Downtown Plan EIR. As a result, the associated impacts of Rincon Hill development occuring before 2000 would be double-counted under the methodology of this analysis.

The Downtown Plan EIR analyzes transportation impacts for the proposed Downtown Plan and five alternative proposals for downtown zoning controls. For purposes of evaluating worst-case conditions, P.M. peak hour travel is the critical period to examine. P.M. peak travel volumes for the proposed Downtown Plan and its five alternatives generate approximately the same amount of travel demand. The Rincon Hill Plan impact analysis therefore covers the full range of zoning controls for the downtown districts.

1) Travel Demand

Existing land uses in the Rincon Hill Plan area generate approximately 16,600 daily person trip ends (PTE). Maximum buildout of the area under the proposed Rincon Hill plan would generate about 126,800 daily PTE, for a net increase of 110,200 daily PTE. The proposed development potential would add approximately 11,400 PTE during both the A.M. and P.M. peak hours and would increase two-hour peak period trips by about 16,900 PTE. Table 10, (below) , summarizes trip generation by land use.

TABLE 10
TRIP GENERATION - PERSON TRIP ENDS (PTE)
RINCON HILL PLAN

LAND USE	TRIP SIZE	RATE(1)	DAILY	PEAK PERIOD	PEAK HOUR
Office	850 KSF (2)	18.1 (3)	15,500	2,500	1,600
Retail	150 KSF	150.0 (3)	22,700	3,400	2,300
Commercial	3,925 KSF	9.5 (4)	37,400	6,000	3,800
Residential	6,800 Units	7.5 (5)	51,200	9,700	5,400
Total New Trips			126,800	21,600	13,100
Existing Trips			16,600	2,700	1,700
Net Added Trips			110,200	18,900	11,400

(1) Daily person trips per 1,000 square feet or per unit.

(2) KSF = 1,000 square feet.

(3) S.F. Department of City Planning, Guidelines for Environmental Review - Transportation Impacts, July 1983.

(4) Based on existing office/industrial land uses in Subarea 3.

(5) California Department of Transportation. Caltrans 13th Progress Report on Trip Ends Generation, June 1981.

Person trips by travel mode are provided in Table 11, (below), with a distinction made between residential travel in Subareas One and Two, and non-residential(office/retail/commercial/ industrial) activities in all three Subarea.

TABLE 11
RINCON HILL TRAVEL BY MODE
NET NEW DAILY PERSON TRIPS[1]

MODE	NON-RESIDENTIAL	RESIDENTIAL	TOTAL
Auto	18,400	5,700	24,100
Muni	9,800	33,600	43,400
BART	6,700	3,500	10,200
AC	1,000	150	1,150
SamTrans	400	50	400
SP Caltrain	500	250	800
Golden Gate Bus	900	100	1,000
Golden Gate Ferry	200	50	250
Charter Club Bus	200	-0-	200
Walk	20,500	7,800	28,300
Other	300	-0-	400
TOTAL	59,000	51,200	110,200

[1] This modal trip information incorporates assumptions regarding directions of travel to and from the project are, outlined in the Guidelines for Environmental Review - Transportation Inpacts, July 1983. All calculations for Rincon Hill Plan travel are available for public review at the Office of Environmental Review, 450 Mc Allister Street, 5th floor, San Francisco.

2) **Traffic Impacts**

A key element of the traffic analysis is the removal of the Embarcadero freeway (SR480), which is proposed in the I-280 Transfer Concept Program. The impact of the Freeway removal and the reconstruction of the stub end of I-280 are not analyzed in this EIR. These actions are part of a larger package of projects that are being analyzed in the I-280 Transfer Concept EIR/EIS. The package of preferred projects (the preferred alternative) has not yet been selected. One of the proposals studied is an extension of the Caltrain Southern Pacific rail tracks from the terminal at Fourth and Townsend Streets to a location closer to the downtown area. Such an extension would involve right-of-way through the Rincon Hill area. As traffic operations at individual intersections vary widely between alternative packages it is presumptive and premature to implicitly select the preferred alternative now. Readers should refer to the I-280 Transfer Concept Program EIR/EIS for a comparative treatment of the alternatives when it is available.

The removal of the freeway and reconstruction of Embarcadero roadway, would cause substantial changes in traffic circulation. The existing SR 480 on-ramp at Folsom Street/Beale Street and the off-ramp at Folsom Street/Fremont Street would be removed. A replacement northbound off-ramp would be provided on Folsom Street at Spear Street. Approximately 1,700 vehicles would use this ramp to access Folsom Street and the Embarcadero during peak hours. Much of the downtown traffic which would otherwise use the Embarcadero Freeway ramps at Broadway and Clay/Washington Streets would divert to the First Street on-ramp and Fremont Street off-ramps in the project area, increasing the length and duration of traffic queues at these ramps during P.M. peak conditions.[2]

By assuming the removal of the Embarcadero Freeway, this impact analysis provides a worst-case account of traffic impacts on the local street network in the Rincon Hill area. If the Embarcadero Freeway were not removed, traffic operation would differ in four main areas, compared to the scenario assumed in the analysis:

- Route accessing the freeway would experience shorter congestion durations, primarily on Harrison, First and Second Streets;
- Traffic on Folsom east of Spear and on Spear Street would be substantially reduced without the replacement off-ramp;
- Traffic on Folsom would be greater between Second and Beale Streets where the existing freeway ramps would remain; and
- Traffic volumes on the Embarcadero would be less if the freeway remained in place.

The critical period for traffic analysis is during the P.M. peak, when congestion occurs on streets leading to the freeway ramps in the Rincon Hill area. Peak outbound traffic flows from the proposed office and commercial development on Rincon Hill would also occur at this time.

The Rincon Hill Plan would add approximately 19,700 daily vehicle trips and 2,400 peak hour vehicle trips to project area streets. These trips were assigned to local streets according to projected directions of travel and the location of parking.

The vehicle trips projected for the Rincon Hill Plan assume existing levels of vehicle use and therefore provide an analysis for traffic conditions in a worst-case scenario. Future P.M. peak vehicle trip increase will be constrained by regional highway capacities (Bay Bridge and James Lick Freeway). Highway capacity is expected to remain constant as transit capacity serving the downtown area increases in the future. The relative share of P.M. peak trips made by auto is expected to decrease as diversion to other travel modes occurs and congestion and parking costs increase. Based on studies which analyze the change in future mode split[1],[2] vehicle trips generated by Rincon Hill development could decrease, creating travel patterns that are similar to the portion of the South of Market area that is immediately adjacent to the downtown and better served by transit. A change in modal split, however, would not occur until public transit service to the project area is increased substantially. In contrast, the Downtown Plan EIR transportation analysis accounts for a shift in modal travel up to the year 2000, because the C-3 districts have a well-established transit network.

Nearly two-thirds of the parking for commercial land uses in Rincon Hill would be provided in the large intercept parking lots south of Harrison Street. Harrison Street and Beale Street would provide access to these lots. Access to most residential parking would occur along First, Fremont, Beale and Main Streets between Folsom Street and Harrison Street.

Inbound traffic would primarily use Folsom Street, Harrison Street, Bryant Street, Main Street and the Fremont Street off-ramp. Outbound traffic would use Harrison Street, Beale Street, the First Street on-ramp at the Bryant Street lane. Combined impacts of traffic resulting from Plan build-out and downtown area cumulative development are evaluated for each street as follows:

Folsom Street: Traffic volumes on Folsom Street west of Spear Street would decrease substantially due to the removal of the Embarcadero Freeway on-ramp at Beale Street. However, the replacement off-ramp at Spear Street would add about 1,700 peak hour vehicles between Spear Street and The Embarcadero. Level of service would generally be in the "C" to "D" range in the area between Spear and The Embarcadero, except between First and Second Streets where freeway ramp queueing would occur for one to two hours, reflecting a level of service of "D" to "E".

With the proposed Plan, about 200 vehicles would use Folsom Street during the P.M. peak hour, primarily to access residential development. Level of service would still be in the "C" to "D" range; however, congestion between First and Second Streets would potentially extend beyond one hour to two hours in duration.

Harrison Street: Queueing occurs on Harrison Street at present. The duration of queued conditions would increase to two to three hours within the study area under future conditions. Level of service would be generally characterized as "F", jammed conditions, accessing the freeway between Second and Beale Streets.

Traffic to and from the intercept parking lots would potentially increase volumes on Harrison Street. Queue lengths would increase, and as a result, much of the project traffic would divert to Bryant Street, Folsom Street and The Embarcadero. It would be extremely difficult for Plan area traffic to use Harrison Street during P.M. peak conditions without significant delays of 5 to 10 minutes.

Bryant Street: Future traffic flows on Bryant Street would be characterized in the level of service "B" range. The proposed realignment of the intersection of Bryant Street and The Embarcadero, proposed as part of the I-280 Transfer Concept Program, would improve traffic operations.

Approximately 200 vehicles would use the westbound High-occupancy Vehicle (HOV) lane on Bryant Street from the intercept parking lots. Traffic activity adjacent to the intercept parking lots would increase but not enough to cause congestion. Level of service on Bryant with the proposed project would be in the "C" range, without extended delays.

Second Street: Congestion at the intersections with Harrison Street and Bryant Street would increase due to the projected downtown (C-3) and traffic accessing the freeway. The impacts of project traffic on Second Street would not be substantial.

First Street: Traffic increases on First Street are constrained by the capacity of the Bay Bridge. Future level of service on First Street in the study area with forecasted downtown (C-3) growth would be generally characterized as "F" over a two to three-hour period.

Some Plan area traffic would use First Street to access residential parking. The proposed project would generate demand for 330 vehicles per hour (vph) on First Street. Due to the congested conditions, much of this traffic would be spread over the three hour peak period. With the Plan, level of service "F" conditions would continue, with congestion extending over two hours.

Fremont Street: Future conditions on Fremont Street in the northbound direction would be generally open (level of service "B"). Queueing would occur in the southbound direction between Folsom and Harrison due to traffic accessing the freeway.

The project would increase volumes northbound on Fremont Street by twenty to thirty percent in the P.M. peak hour. Traffic

operation would still be acceptable (level of service "C" to "D") without extended delays. During the morning peak period about 200 additional vehicles generated by Rincon Hill development would use the Fremont Street off-ramp from the Bay Bridge. Most of these vehicles would use Harrison Street to access parking locations.

Beale Street: Because of its grade separation with Harrison Street, future conditions on Beale Street would be similar to today (level of service "A" to "B"). With the proposed Plan, local traffic on Beale Street north of Harrison Street would not impact traffic operations. South of Harrison Street, Beale Street would be a primary access route for the intercept parking lots. About 500 vehicles would use Beale Street south of Harrison Street during peak hours to access The Embarcadero and points to the south. Level of service in this area would be "C".

Main Street: Traffic volumes on Main Street would be similar to existing conditions with small traffic volumes and level of service "A" operation. Full development under the proposed Plan would increase traffic on Main Street by thirty to forty percent, but due to low existing volumes, the impacts would not be significant. Level of service would remain in the "A" to "B" range with little delay.

Spear Street: Traffic on Spear Street is very light at present and full development under the Plan would add only local traffic during the P.M. peak. During the A.M. peak period, approximately 400 vph would access the area using the new replacement off-ramp from the Embarcadero Freeway. Traffic conditions with and without the proposed project would be level of service "D" near the off-ramp and "C" south of Folsom.

Steuart Street: Due to reconstruction of The Embarcadero roadway, Steuart would serve as a limited access local street with low volumes. The proposed Plan development would add very little traffic to Steuart Street (100 vph) with conditions remaining open (level of service "A").

The Embarcadero: The Embarcadero would become a key circulation element after removal of the Embarcadero Freeway, linking the north of Market financial district with freeway ramps to the East Bay and Peninsula. Traffic conditions adjacent to east side of the Plan area would be characterized at level of service "D", with large traffic volumes.

The Rincon Hill Plan build-out would increase volumes on The Embarcadero by about five percent in each direction. Traffic operation would remain in the level of service "D" range with little or no queueing and same delays.

Table 12, page 108 summarizes the traffic conditions in the Rincon Hill area with and without the proposed Plan, and also provides conditions with and without the Embarcadero Freeway removal.

TABLE 12
TRAFFIC CONDITIONS

Street	Existing		Future1		Without Freeway Future and Plan		With Freeway Future and Plan	
	LOS[2]	DUR[3]	LOS	DUR	LOS	DUR	LOS	DUR
Folsom: 2nd-Beale	D	1	D	1-2	D	2	E	2
Beale-East	B	-	C/D	-	C/D	-	C	-
Harrison: 2nd-Beale	F	1-2	F	2-3	F	2-3	F	1-2
Beale-East	B	-	B	-	C	-	B	-
Bryant	B	-	B	-	C	-	C	-
Second	F	1	F	1-2	F	1-2	F	1
First	F	1-2	F	2-3	F	3	F	2
Fremont	B	-	B	-	C/D	1	C	-
Beale	A/B	-	B	-	C	-	C	-
Main	A	-	A	-	A/B	-	A/B	-
Spear	A/B	-	C/D	1	C/D	2	A/B	-
Steuart	A	-	A	-	A	-	A	-
The Embarcadero	C/D	-	D	1	D/E	1	D	1

1 "Future" indicates traffic conditions assuming cumulative downtown travel in 2000.

2 LOS = Level of Service (see Appendix B for definitions)

3) DUR = Duration of congested conditions during peak (in hours).

SOURCE:

- o I-280 Transfer Concept Program, FWP 1.5.6. Travel Demand Forecast/Analysis, July 1983.
- o DKS Associates and ESA/Urbitran, March 1984.

3) Transit Impacts

The Rincon Hill Plan area currently has very limited direct transit service, although both local and regional transit service is available within a 10 to 15 minutes walk. Five San Francisco Municipal Railway (Muni) lines offer weekday transit service to some portion of the Rincon Hill area and are described in Table 13, (below) . Most other nearby Muni service is available along the Market and Mission Street corridors, providing access to various parts of the City in addition to the downtown. The Transbay Terminal at Mission and First Streets is a regional transit center, providing access to AC Transit (East Bay), Golden Gate Transit (North Bay), Sam Trans (Peninsula), various charter bus lines, and Muni. The nearest BART access is at the Embarcadero Station on Market Street.

TABLE 13
EXISTING TRANSIT SERVICE TO/THROUGH RINCON HILL

ROUTE	SERVICE	DESTINATION
12 - Folsom	Weekday Daytime	Mission
32 - Embarcadero	Daytime	NE Waterfront
41 - Union	Daily with Owl Service	Downtown/North Beach/ Presidio
42 - Downtown Loop	Daily	Downtown/Fisherman's Wharf/ Van Ness
76 - Marin Headlands	Sunday only	Marin County
80X - Gateway Express	Weekday Peak only	Embarcadero Center/San Francisco Depot

Table 14, page 111, identifies the number of P.M. peak hour trips by transit carrier that would be generated by full build-out of the proposed Plan. The Rincon Hill trips are analyzed as an additional component of demand for public transit above that projected in 2000 for each carrier in the Downtown Plan EIR. As discussed, the Downtown Plan EIR[3] identifies that capacity increases up to 1990 are derived from the Five-Year Plans for each of the transit agencies (1983-88). Additional capacity increases between 1990 and 2000, where applicable, were determined based on information supplied by the individual agencies. In most circumstances, the 2000 capacity estimates are general in nature, primarily because the planning horizons are established for 1988. Muni capacity increase estimates for 1990-2000 we based on improvements identified in the report, Projections of Future Muni Demand and Vehicle Requirements.[4]

Taking Full Plan build-out into account, the Level of Service (LOS) for Muni service to the northwest corridor would be degraded from "D" to "E". All other Muni corridors and regional carriers would not experience a change in LOS from full build-out. Even with programmed service improvements, cumulative development would result in low levels for passenger comfort on BART and Muni, as currently experienced.

As mentioned in the Traffic Impacts discussion, page 103, vehicle travel in the Plan area would decrease as direct transit service is improved to Rincon Hill. Though not assumed in the base transit capacity increases in the above analysis, a number of improvements are proposed for Muni that would substantially increase Muni service to Rincon Hill:

1) Construction of the MUNI Metro turnaround at the Embarcadero Station - As Muni's highest priority rail project, the turnaround would enable greater operation efficiency particularly during commute periods. Construction would be expected to begin in 1987 or 1988.

2) Muni Metro Extension to the vicinity of Fourth and Townsend Streets - The construction of such an extension is anticipated to begin between 1985 and 1988, utilizing the turnaround described in item one above. This extension would directly serve Rincon Hill.

3) E-Line Streetcar - This route would travel along the Embarcadero Roadway providing access between the Southern Pacific depot at Fourth and Townsend Streets and the northern portion of the City at Fort Mason/Fisherman's Wharf. Construction is anticipated to begin sometime between 1986 and 1989.

All three proposals have been adopted by the Metropolitan Transit Commission (MTC) in the "San Francisco Bay Area New Rail Starts and Extensions Plan," 1983. The review of all three proposals is included in the I-280 Transfer Concept Program.

TABLE 14
TRANSIT DEMAND - RINCON HILL PLAN BUILD-OUT
(P.M. PEAK HOUR)

	1984			2000		RINCON HILL	2,000		
TRANSIT AGENCY	EXISTING DEMAND	CONDITION P/S[1]	LOS	DTP[2] DEMAND	EIR LOS	FULL BUILD-OUT DEMAND	# OF SEATS	P/S[3]	LOS[3]
MUNI North/East	7,100	1.16	D	8,800	D	1,060	8,400	1.18	D
MUNI North/West	8,200	1.26	E	10,100	D	360	8,100	1.30	E
MUNI South/West	13,500	1.46	E	16,600	E	310	11,700	1.44	E
MUNI South/East	5,300	1.06	D	7,400	D	230	7,300	1.04	D
BART Transbay	16,100	1.53	F	27,900	E	340	19,600	1.44	E
BART Westbay	7,700	1.10	D	10,300	D	240	9,500	1.08	D
AC Transit	9,100	0.94	C	10,300	D	130	9,700	1.07	D
Golden Gate Bus	5,300	1.00	C	8,500	C	100	9,300	0.92	C
Golden Gate Ferry	800	0.57	B	1,500	A	20	4,000	0.38	A
Tiburon Ferry	200	0.40	A	300	B	3	500	0.60	B
Sam Trans	1,900	1.12	D	3,100	D	40	2,600	1.19	D
SPRR/Caltrain	3,100	0.61	B	4,900	C	90	6,200	0.81	C

1) Ratio of number of passengers to the number of seats.

2) Ridership forecasts from the Downtown Plan Draft Environmental Impact Report (EE81.3), March 1984.

3) Both columns represent combined Rincon Hill Plan and downtown area cumulative ridership loadings.

These improvements would expand Muni's City-wide service capacity by extending route service and increasing operational efficiency, as well as by increasing ridership capacity. By providing direct service to the Rincon Hill area, automobile travel would likely decrease as residents and employees shift to transit modes of travel, resulting in a decrease in traffic congestion on the local street and regional freeway system.

4) **Parking Impacts**

The Plan area is located one and one-half blocks south of the Downtown Core Automobile Control Area, the area identified in the Transportation Element[5] as an area in which the use of private vehicles should be discouraged, and is adjacent to the short-term parking belt generally located between Howard and Folsom Streets.

There are presently about 2,500 on-and off-street parking spaces within the Rincon Hill area, which are approximately 85 to 90% occupied.[6] Figure 40, page 113 shows these parking locations. At full build-out under the proposed Plan, most of these spaces would be replaced with new development.

Parking standards identified in the proposed Plan, and the number of spaces that would be produced under full build-out are contained in Table 15, (below) . In addition, the Plan proposes intercept commuter parking facilities on Blocks 3766 and 3767 in Subarea Three, which would provide about 3,000 spaces.

TABLE 15
PROPOSED PARKING REQUIREMENT

USE	REQUIREMENT	SPACES
Commercial:		
Subareas One and Two (1 million GSF[a])	1 space/1,500 sq. ft.	670
Subarea Three (4-million Gsf)	1 space/1,000 sq. ft.	4,000
Intercept Commuter	Parking Facilities on Blocks 3766 and 3767	3,000
		7,670
Residential:		
Lower range (3,700 DU[b])	1 space/DU	3,700
Upper range (6,800 DU)	0.25 space/DU	1,700

a) Gross square feet of floor area.
b) Dwelling unit.

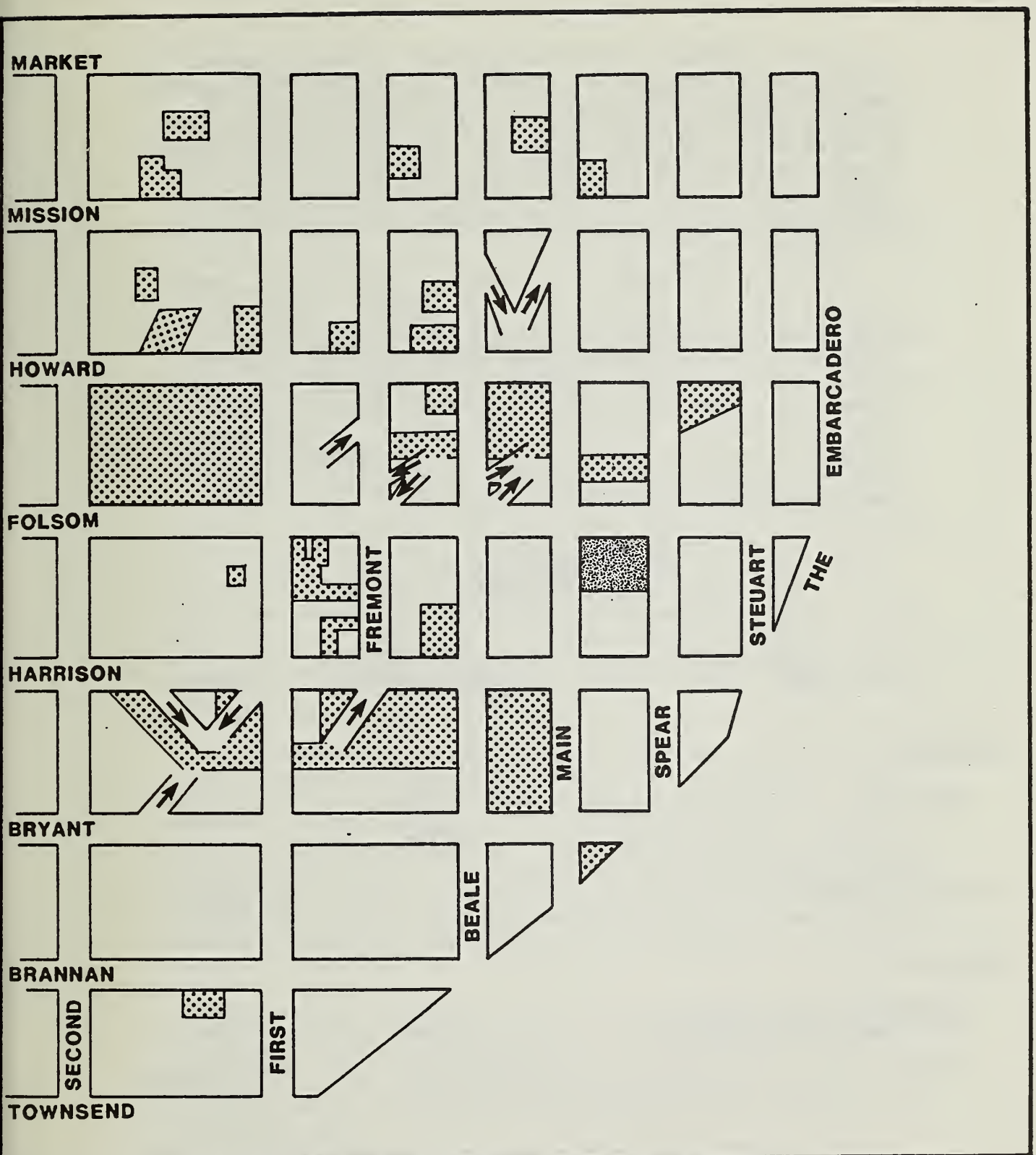


FIGURE 40: PARKING CONDITIONS

FREEWAY RAMP DIRECTION

SURFACE PARKING LOTS

GOLDEN GATE BHTD BUS PARKING

NOT TO SCALE

The Plan proposes a flexible residential parking standard, establishing a minimum of one space for every four dwelling units, but not exceeding one space for each dwelling unit. This is intended to provide some flexibility for residential development; by implementing the lower one-to-four standard, less space would be occupied by parking thus freeing up some space for more dwelling units. This condition was assumed in calculating the residential development potential range of 3,700 to 6,800 units for Subareas One and Two.

Full Plan build-out would create an estimated demand for 8,000 to 9,600 spaces as shown in Table 16, (below) .[7] Residential development in Rincon Hill has been planned to be similar to that in the Golden Gateway Redevelopment Area, where the strong interrelationship between residents in high density housing and surrounding commercial services (as well as nearby downtown) reduces the need for privately owned vehicles. Parking demand for residential build-out in Rincon Hill was therefore calculated using auto ownership ratios recorded for the Golden Gateway development in the 1980 U.S. Census.

TABLE 16
PARKING DEMAND

USE	POTENTIAL DEMAND	SUPPLY
Commercial:		
Long-Term	5,700	4,200
Short-Term	400	470
	6,100	
Intercept Parking:		3,000
		7,670
Residential:		
Long-Range (6,800 units)	1,900	3,700
Upper Range (6,800 units)	3,500	1,700
TOTAL:	8,000-9,600	11,370-9,370

If the upper end of the residential range were developed, there would be a parking deficit. Peak parking demand could be 10 to 20% less, since not all residents' vehicles would be expected to be at home at any given time. Portions of the parking deficit could be accommodated by shared parking programs between the commercial and residential uses. However, a parking deficit would probably still remain.

At full build-out, Rincon Hill would likely have direct public transit service to the area. Together with development of the Rincon Point/South Beach Development area, there would be a core demand that would justify the development of additional transit access to the area, such as the Metro turnaround and extension, and E-Line streetcar described earlier. These improvements, in addition to extension of routes into the Plan area that currently serve the downtown, would reduce auto use (and thus parking demand), particularly by daytime users (employees).

Some on-street parking would be removed by sidewalk widening on Spear, Main and Beale Streets, which would most likely replace angled parking with parallel parking. This could result in a loss of approximately 75 on-street parking spaces.

5) **Pedestrian Impacts**

Travel within the area under the proposed Plan would include substantial walking activity, associated primarily with retail and residential development. While it is not known how many Rincon Hill residents would also work in the Rincon Hill area, it is assumed these work trips would be made by walking. Other pedestrian trips generated by Rincon Hill residents would reflect other home-base trips such as shopping, meals, recreation and visiting. A substantial portion of these trips would be internal to the Plan area at full build-out and would spread fairly evenly throughout the day.

The proposed Plan includes a set of policies that specifically address the need for improvements in pedestrian access in the area. The Plan calls for widened sidewalks on the major north-south streets of Beale, Main and Spear that link with the downtown. The Plan also proposes the development of a pedestrian alleyway system running in an east-west direction between Folsom and Harrison Streets. Such a system would provide pedestrian access to the Waterfront at the Embarcadero and internal access to residences, separate from the heavy traffic along Folsom and Howard.

Additional pedestrian trips would be generated by the intercept parking facilities in Subarea Three at full operation (full Plan build-out). Most of these trips would be concentrated during the A.M. and P.M. peak periods and would be expected to be walk trips to transit service that would provide access to the downtown and surrounding areas.

The pedestrian access improvements proposed in the Plan would be expected to accommodate increased pedestrian circulation associated with full build-out and generally result in unimpeded sidewalk conditions.[8]

NOTES - TRANSPORTATION

1) The methodology utilized in projecting travel patterns for both C-3 and non C-3 growth is explained in full in Appendix J (Volume 2) of the Downtown Plan Draft Environmental Impact Report (EE81.3), San Francisco Department of City Planning, March 1984, which is hereby incorporated by reference and is summarized in the introduction to the transportation impacts discussion.

2) I-280 Transfer Concept Program, Subtask 1.5.6, Final Working Paper-Travel Demand Forecasting/Analysis, July 1983.

3) Transit Capacity assumptions as discussed in EE81.3 Downtown Plan Draft EIR, pages IV, E-24-26 and page J.26 of Appendix J (Volume 2) are hereby incorporated by reference.

4) San Francisco Municipal Railway Planning Division, Projections of Future MUNI Demand and Vehicle Requirements, Scenario XIII, October 1982.

5) San Francisco Comprehensive (Master) Plan, Transportation Element/Downtown Transportation Plan, June, 1982.

6) San Francisco Department of City Planning South of Market Parking Survey, March 1982.

7) Parking demand calculations are included with all trip generation background data, which are available for public review at the Office of Environmental Review, 450 McAllister Street, 5th Floor, San Francisco.

8) Pushkaren, Boris and Zipan, Jeffery, Urban Space for Pedestrians, The MIT Press; Cambridge, MA, 1975, page 159.

F. AIR QUALITY

Development of Rincon Hill Plan build-out would affect air quality in two ways: emissions would be generated by project-related traffic, and by combustion of natural gas for building space and water heating. Transportation sources would account for over 95% of project-related emissions. Projected daily emissions of pollutants from traffic generated from full Rincon Hill Plan build-out using year 2000 emission rates, are shown in Table 17, page 118. These emissions are also compared in the table to year 2000 emissions projected for cumulative development analyzed in the Downtown Plan Draft EIR, and to total emissions projected for the entire Bay Area by the 1982 Bay Area Air Quality Plan. Although full build-out of Rincon Hill would not occur until sometime after the year 2000, it is assumed for the purpose of comparison that the average-vehicle emission rates would stabilize and remain constant after 2000.

It is recognized that, if adopted, development according to the Rincon Hill Plan would occur before 2000, and would therefore represent a segment of the cumulative non C-3 growth forecasted and analyzed in the Downtown Plan Draft EIR. However, it is not known what proportion of Rincon Hill Plan full build-out would occur by then. The approach contained here thus presents a worst-case impact analysis, by evaluating the impact of full build-out generated emissions as a separate addition to emission levels from cumulative growth forecasted for 2000; there is no adjustment for double counting of the emissions that are associated with Rincon Hill Plan development before 2000.

Motor vehicle trips associated with the project and with cumulative development would emit more nitrogen oxides (NOx) than hydrocarbons (HC), both of which are chemical precursors of ozone, while emissions from building natural gas combustion would consist primarily of NOx. On the basis of ozone simulation studies conducted for the 1982 Bay Area Air Quality Plan, incremental NOx emissions in excess of incremental HC emissions could lead to a slight decrease in peak ozone concentrations in the Bay Area.[1] Thus, emissions of HC and NOx generated by the project and by cumulative development would not increase Bay Area ozone concentrations. If the HC emission reduction strategies recommended in the 1982 Bay Area Air Quality Plan are successful, these concentrations are expected to attain the federal standard by 1987.

It is possible, however, that excess NOx emissions generated by the proposed Plan and cumulative development could increase ozone and/or nitrogenous oxidant concentrations further downwind, outside the Bay Area. In addition, incremental NOx emissions could lead to violations of the NO_2 standard with concomitant health effects; could reduce visibility; or, to a relatively small extent due to the small magnitude of the increase and to dilution over time and distance, could increase acid rain further downwind, outside the Bay Area.

TABLE 17

PROJECTED DAILY POLLUTANT EMISSIONS

Pollutant	Emissions (tons per day, year 2000) /a/ Project	Downtown Plan/b/	Bay Area/c/
Hydrocarbons	0.34	1.2	428
Nitrogen Oxides	0.36	1.6	610
Carbon Monoxide	3.54	13.4	1,883
Particulates (TSP)	0.62	2.4	649
Sulfur Oxides	0.06	0.2	233

/a/ Rincon Hill Plan build-out and Downtown Plan EIR emissions calculated using BAAQMD, EMFAC6C vehicular emission factors. Emissions of CO, HC, and NOx include an assumed six minutes of idling time per vehicle trip. Emissions of TSP include dust entrained from roadway surfaces.

/b/ Incremental emissions of Cumulative development, per The Downtown Plan Draft EIR, Table IV.I.2, p. IV.I.12.

/c/ Accumulative total emissions of Bay Area development, per ABAG, BAAQMD, MTC, 1982 Bay Area Air Quality Plan, pp. 42, 53, and 112.

SOURCE: Environmental Science Associates, Inc.

TABLE 18

PROJECTED WORST-CASE CURBSIDE CARBON MONOXIDE CONCENTRATIONS AT SELECTED INTERSECTIONS

Intersection	Averaging Time	Concentrations (ppm) /a/ 1984	Downtown Plan EIR 2000 /b/	Downtown Plan EIR 2000 Plus Project
Bryant & Second	1-hour	12.9	8.4	8.5
	8-hour	9.2	6.1	6.2
First & Harrison	1-hour	11.6	7.3	8.9
	8-hour	8.0	5.6	6.3

/a/ Calculations for all scenarios were made for worst-case (poor dispersion) meteorology, using the modified linear rollback method. Background concentrations were calculated to be 7.3 ppm for one hour and 5.6 ppm for eight hours in 1984, and 4.8 ppm for one hour and 3.7 ppm for eight hours in 2000. No excesses of ambient standards are projected. The one-hour state standard is 20 ppm, the one-hour federal standard is 35 ppm, and the eight-hour state and federal standard is 9 ppm.

/b/ The Downtown Plan Draft EIR, Table IV.I.3, p. IV.I.16.

SOURCE: Environmental Science Associates, Inc.

Curbside CO concentrations at selected intersections affected by traffic generated by full build-out of the Plan and by cumulative development traffic were projected for worst-case conditions (poor dispersion meteorology), using year 2000 emission rates, and are compared with the ambient standards in Table 18, page 118. These concentrations are also compared in the table to year 2000 concentrations forecasted for cumulative development in the Downtown Plan Draft EIR. Although full build-out of Rincon Hill would not occur until sometime after the year 2000, it is assumed for the purpose of comparison that the average-vehicle emission rates would stabilize and remain constant after 2000. No excesses of the applicable CO standards are projected at either location analyzed, under any scenario.

CO concentrations are predicted to be less in 2000 than in 1984. In 2000 traffic volumes in the downtown area would increase by about 15%, area-wide, over 1984 volumes, as analyzed in the Downtown Plan Draft EIR. However, in 2000 the average vehicle is expected to emit 43% less CO than in 1984 due to ongoing state and federal emissions controls. The projected effects of state and federal emission controls on new vehicles (and the retirement of older, polluting vehicles) would more than offset the increases in traffic volumes and traffic congestion due to project and cumulative development.

Emissions of TSP generated by Plan build-out and cumulative development would increase TSP concentrations, which could increase the frequency of TSP standard violations in San Francisco, with concomitant health effects and reduced visibility.

Emissions of SOx generated by Plan build-out and by cumulative development would probably not bring San Francisco's SO_2 concentrations measurably closer to violating the standard.

The proposed Plan and other cumulative development analyzed in the Downtown Plan EIR would not conflict with the pollution reduction strategies recommended by the 1982 Bay Area Air Quality Plan. These strategies consist primarily of HC and CO emission controls on stationary sources and motor vehicles, and transportation improvements, and are aimed at attaining the federal ozone and CO standards.

Air Quality analyses evaluate emissions from the number of total daily vehicle trips generated by a project to present a worst-case account of impacts. The Downtown Plan EIR evaluates five different alternatives for regulating downtown development. Alternative One, the "No Project" scenario (or existing Planning Code Zoning Controls), represents the zoning control allowing the greatest amount of forecasted development potential (above existing conditions) of the five: Compared to alternative One, emissions generated from the forecasted development potential under the proposed Downtown Plan (which is reflected in Tables 17 and 18 above) would be about 38% less. Pollutant emissions from the forecasted development potential

under Alternative Four (that proposed by San Francisco for Reasonable Growth) would generate approximately seven percent less than the Downtown Plan. Emissions generated by Alternatives two, three, and five would fall within this range. The types of air quality impacts under these alternatives would be the same as those under the Downtown Plan; their magnitudes would vary in proportion to the differences in their emissions.

NOTES - AIR QUALITY IMPACTS

1) The model used to conduct the Ozone simulations was the livermore Regional Air Quality (LIRAQ) model, which simulates the effects that meteorology, topography, and chemical interaction of pollutants have on Bay Area air quality. A further description of this model is contained in the Downtown Plan Draft Environmental Impact Report, page IV.1.7.

G. Noise Impacts

1) Compatibility with Ambient Noise Levels

San Francisco guidelines for the compatibility of various land uses with different noise environments (Environmental Protection Element of the San Francisco Comprehensive Plan, page 19) were adopted by City Planning Commission Resolution No. 7244, September 19, 1974. Table 19, page 122 , shows general development requirements, for each specified noise level criterion, for those land uses proposed as a part of the Plan.

In addition to the San Francisco Environmental Protection Element, Title 25 of the California Administrative Code states that for dwellings other than single-family detached units, such as hotels, apartments and condominiums, "Interior community noise equivalent levels (CNEL) with windows closed, attributable to exterior sources shall not exceed a CNEL of 45 dB in any habitable room." CNEL is a 24-hour measurement comparable to L_{dn}.

As stated in the Noise Setting, the Ldn for major thoroughfares within the Plan area range from 70 to 80. New residential, office and commercial projects would have to undergo separate site-specific environmental evaluation to determine which noise reduction insulation features would be necessary to avoid adverse noise levels.

The proposed land use plan would site Subareas One and Two away from the Bay Bridge and freeways. Distance from these noise sources would not result in a substantial decrease in noise level in the residential environments.[1] However, the placement of buildings between these noise sources and Subareas One and Two would provide a further sound attenuation measure. Development in Subarea Three would provide a noise buffer for the open space encouraged in Subareas One and Two. This "buffer zone" would reduce the impact that noise from the surrounding freeways and Bay Bridge would have on the proposed pedestrian alley system and other outside areas such as courtyards and arcades which could be developed in the residential districts of the project area.

Specific sites encouraged for open space in Subarea Three include the area immediately surrounding the Bay Bridge anchorage on Beale Street west of Harrison Street, and the rooftops of intercept parking garages on Beale and Fremont Streets. If maximum buildout were achieved, the open space on the roof tops could be located 84 feet above street level, adjacent to the Bay Bridge. The severity of noise impact for the open space sites impact would vary by degree of active use proposed for such sites.

TABLE 19
LAND USE COMPATIBILITY REQUIREMENTS* FOR COMMUNITY NOISE LEVELS

	NOISE LEVELS, LDN, IN DBA					
LAND USE	UP TO 60	65	70	75	80	85
Residential	A	C	C	C	C	
Parks, Open Space	A	A	A,C	C	D	
Office	A	A	A	B	C	C
Commercial Retail	A	A	A	B,C	C	C
Commercial Industrial	A	A	A	A	B,C	C

*The Element shows overlapping ranges of noise levels for requirements.

REQUIREMENTS

A) Satisfactory, no special noise insulation required.

B) New development only after analysis of noise reduction requirements; noise insulation must be included.

C) Discourage new development; requirements as for B, above, for development.

D) New development generally should not be undertaken.

SOURCE: Environmental Protection Element of the San Francisco Comprehensive Plan, 1974.

2) **Noise Impact on Adjacent Land Uses**

Maximum realization of the proposed Plan could affect the existing acoustic environment in the area in two ways: by generating additional traffic in the vicinity therefore contributing to an increase in overall traffic noise levels; and by adding to the noise environment the sounds of mechanical equipment associated with buildout.

Traffic generated by buildout during any hour of the day would cause noise levels to increase by less than one dBA on any of the adjacent streets. This increase would result in about a one dBA increase in environmental noise levels. A one dBA increase in environmental noise is undetectable to humans except in a laboratory situation.

San Francisco's noise ordinance limits the amount of noise mechanical equipment can emit throughout day and nighttime hours.[2] The ordinance does not have established standards for the new zoning proposed for Subareas One and Two. However, the noise ordinance requires that noise from mechanical equipment in high density residential disticts not exceed 60dBA between 7 A.M. and 10 P.M. This level would be below the existing background noise level in the vicinity of the site and no increase in noise levels due to mechanical equipment would be expected.

3) **Construction Noise Impacts**

Construction noise in San Francisco is also regulated by the noise ordinance. The ordinance requires that all powered construction equipment except impact tools and equipment not emit more than 80 dBA when measured at a distance of 100 feet. Impact tools and equipment including pavement breakers, jackhammers and pile drivers must have their intake and exhaust muffled to the satisfaction of the Director of Public Works. The ordinance further requires a special permit for construction after 8:00 P.M. and before 7:00 A.M.

Construction of specific buildings under the proposed Plan's build-out would take place in three phases: excavation, foundation construction, and building and erection. Construction noise levels would fluctuate measurably between each phase and the duration of construction activity. The worst-case noise impacts associated with the various phases of construction have been estimated for this study.

During excavation, bulldozers, graders, haul trucks and front end loaders would be expected to generate from 64-79 dBA at 100 feet. During foundation construction, the major noise source would be pile driving, during which noise levels up to approximately 105 dBA at 50 feet could be expected. After the pile driving phase, concrete pumpers, power saws, cranes, air compressors, engine generators and impact torque wrenches would be

the major noise sources, emitting from 70 to 95 dBA at 50 feet. These levels have been measured at construction projects in downtown San Francisco.

Empty lots, streets, freeway supports and ramps, and parking lots occupy most of the land surrounding the project area. Two low-rise industrial buildings on Folsom Street are the only structures which immediately border the Plan area. These buildings are located below the freeway ramps. During pile driving in the Plan area, noise levels outside these nearest buildings could reach as high as 99dBA. The noise from pile driving, the noisiest phase of construction operation, would be expected to annoy and distract workers. The use of impact wrenches (the next noisiest construction activity) could interfere with conversation.

It is improbable that construction of all sites within the project area would occur at once, therefore, it is also improbable that each site specific project would be in the same stage of construction at the same time. Actual cumulative noise impacts on a given receptor would depend upon the phasing of each project and the location of the receptor in relation to each of the other projects.

NOTES - NOISE

1) Conversation with Charles Salter, 9/14/82, reduction in noise level through distance from noise source is 3 dB per doubling of distance from source.

2) San Francisco Municipal Code, Section 2909, Fixed Source Noise Levels, 1972.

H. Energy Impacts

As little is known about the types of structures to be constructed beyond height and bulk controls, it is difficult to estimate energy consumption. Implementation of the proposed project would lead to energy costs and consumption from the following sources: site clearance, construction, operation and maintenance. During construction, an unknown amount of non-renewable energy would be used to construct new structures, and to demolish and haul away debris from existing structures.

Annual energy consumption estimates for full build-out are shown on Table 20, page . The consumption factors for electricity and natural gas reflect levels that would allow buildings to comply with requirements contained in California Administrative Code Title 24, Energy Conservation Standards for New Residential and Non-Residential Buildings.

Without building designs, specific energy impacts cannot now be identified. Energy consumption of individual proposals would be subject to separate review as they are submitted to the City. There may be sufficient heat demand density from the build-out of the area to justify consideration of a central heating system and to employ waste heat from an electric generating plant (co-generation).

City-wide energy demand is discussed in the Downtown Plan, which contains the most extensive demand forecasts available. San Francisco's electricity requirements would be about 5.0 billion kWh per year by 2000, about a 32% increase from 1984. Peak demand for the city would be about 1,000 MW, a 30% increase in 16 years. Demand in 2000 would exceed the local capacity of 792 MW provided by the Hunter's Point and Potrero power plants. About 35 billion cu. ft. of natural gas would be consumed in the city annually by 2000.[1] A portion of the estimated energy demand generated by full build-out of the Rincon Hill Plan would occur beyond the year 2000, since full build-out would not be expected within the time frame analyzed in the Downtown Plan EIR.

Under the Downtown Plan, San Francisco would account for about four percent of PG&E's sytem-wide energy consumption in 2000. PG&E expects that about 113 billion kWh of electricity will be consumed in their service area in 2000, a 28% increase from 1984.[2] About 16% of this increase is expected by PG&E to be from nuclear sources; 18% from oil and gas facilities; about 22% from hydroelectric facilities; about 13% from geothermal facilities; about 17% from "other" (undefined) sources; about ten percent from cogeneration; about four percent from imports; and about one percent from wind.[2] The total amount of energy from nuclear power plants is not expected by PG&E to change between 1984 and 2000. The amount from cogeneration is expected to increase about 320%, and the amount from hydroelectric sources about nine percent. Energy from oil and gas-fired plants is expected to decline about two percent during the same period, and purchases from other utilities are expected to increase by about 25%.

TABLE 20
ESTIMATED ENERGY USE BY RINCON HILL DEVELOPMENT

1) Residential Energy Use for proposed maximum residential build-out potential of 6,800 dwelling units.

   (A) Natural Gas

   6,800 dwelling units @ 87,000 $ft.^3$/unit/yr.[1] = $5.9X10^8 ft.^3$/yr.

   (B) Electricity

   6,800 dwelling @ 3,800 kWh/unit/yr.[1] = 2.6×10^7kWh/yr.

2) Commercial Energy Use for commercial build-out potential of approximately 5 million square feet (in Subareas 1, 2, and 3).

   (A) Natural Gas

   5,000,000 sq. ft. @ 11 $ft.^3$/sq. ft./yr.[2] = $5.5 \times 10^7 ft.^3$/yr.

   (B) Electric

   5,000,000 sq. ft. @ 18 kWh/sq. ft./yr.[2] = 9.0×10^7kWh/yr.

1Kwh = 10,239 Btu (at source); 1 $ft.^3$ natural gas = 1,100 Btu (at source)

TOTAL ENERGY USE (upper range) 1.2 million Btu or 122 million kWh.

1) City and County of San Francisco, Energy Supply and Consumption Patterns: Trends and Prospects, 1975 - 1985, 1980.

2) Unpublished building energy consumption data supplied by David Rubbin, Department of City Planning, January 1984.

PG&E expects peak system-wide electrical demand to increase 45% between 1984 and 2000 to about 23,000 M.W.[3] To meet new demand, PG&E plans to increase system capacity by about 35% while allowing its reserve margin to decline from about 23% to about 15%. PG&E's electrical capacity in 2000 is planned to be about 27,000 MW consisting of about 17% oil-or gas-fired plants; about 27% "other" (undefined) sources; about 26% hydroelectric; about 12% nuclear; about nine percent geothermal; about five percent cogeneration; and about four percent purchases from other utilities.[3]

Natural gas consumption in the PG&E service area, at about 600 billion cu. ft. per year, is not expected to change substantially between 1984 and 2000.[4] PG&E plans to continue receiving most of its natural gas from Canada and from Texas under long-term contracts.[4]

NOTES - ENERGY

1) Unpublished building energy consumption data supplied by David Rubin, Department of City Planning, January 1984.

2) Pacific Gas & Electric Company, April 1982, Summary of Requirements and Resources (Form No. R-2)."

3) Pacific Gas & Electric Company, March 1982, Summary of Loads and Resources (Form No. R-1A)."

4) California Energy Commission, 1983, Securing California's Energy Future: 1983 Biennial Report.

I. Geology, Seismicity and Hydrology Impacts

1) Geology

Unconsolidated soil material would have to be excavated and either removed from the sites, or reworked (with removal of undesirable debris), redeposited, and compacted as engineered fill. Some slow differential settlement of structures probably would occur, but this could be planned for during the design and construction of each building. Piles or caissons probably would be needed for the construction of some taller buildings. In general, geotechnical problems could be handled at the design and engineering stage of each proposed structures. All construction would have to comply with the mandates of the San Francisco Building Code.

2) Seismicity

The project would expose new residents and an increased number of workers in the area to the seismic hazards of the site; these include groundshaking, liquefaction, rapid settlement and ground lurching. The new buildings would have to comply with the seismic design standards of the Uniform Building Code. As a result, the proposed structures generally would be safer and more capable of withstanding the lateral seismic forces associated with a major earthquake than existing pre-Code structures. The San Francisco and Uniform Building Codes are designed to confine earthquake damage to the following levels: 1) in a small earthquake, (approximately Richter magnitude 4.5 or less), no structural or non-structural (cladding, windows, etc.) damage would occur; 2) in a moderate earthquake (approximately Richter magnitude 4.5-7.0), extensive non-structural damage would occur, but little or no structural damage would occur; 3) in a major earthquake (Richter magnitude 7.0 to 8.3, the largest expected earthquake on the San Andreas Fault), structural damage would occur, but there would be no loss of life due to this damage. The third level of damage allows for design and construction of buildings from which considerable amounts of cladding and glass could fall to the streets. This falling debris could result in injury or death to pedestrians on the streets below. Build-out of the Plan area by private developers would result in removal or rehabilitation of those existing pre-Code structures, which currently pose a potential safety hazard.

3) Hydrology

As the project area is built-out, there would be construction effects resulting primarily from grading and dewatering activities. The amount of sediment washed into storm drains could temporarily increase when the soils are exposed during grading of building sites. The potential for such sediment discharge and clogging of storm drains is greatest during the rainy November-April period.

During excavation of building sites, dewatering could be required for some sites, particularly those located in the low-lying areas near San Francisco Bay. The water discharged from the excavation pit may contain sediment which would be directed onto streets and into stormdrains. If the groundwater table were lowered, settlements of adjacent areas could occur, damaging nearby buildings. Typical damage would include cracking and uneven setting of walls and foundations of street pavement and sidewalks, and damage to underground utility lines, and storm drains. Older buildings with poor foundations would be particularly susceptible to damage.

Proposals for development would be subject to site - specific geotechnical reports containing recommendations for methods of site preparation and construction.

Project Variant:

If the Federal government were to substantially rehabilitate the structures on Blocks 3745 and 3746, or demolish and newly construct buildings for a public purpose, the buildings would have to comply with the most restrictive building codes from either the Government Service Administration (GSA) Handbooks for Designing Federal Buildings, the Uniform Building Code, or the San Francisco Building Code.

J. Community Services Impacts

1) Police Services

Any type of development in the project area during construction and operation could increase the type and number of crimes occurring in the area. Construction sites would be subject to vandalism of equipment and theft of tools and materials. The rate of burglary and theft in offices, retail stores and other business, as well as in residences, could increase with project implementation. Exact effects on the area crime rate would depend on detailed plans for design and construction of each specific site, and the final density and security arrangements of the project's buildout.

The existing police protection in the project area would not be adequate to serve the area upon buildout. More calls for service would mean delayed response time. To avoid a delayed response time and thus provide adequate police protection, the Police Department indicates that it would have to add either a patrol car or a foot patrol unit to the Project area after full buildout. The Department would not prepare to increase personnel or equipment until calls start increasing, i.e. after construction and occupancy.[1]

2) Fire Protection Services

The Fire Department indicates that if the same street patterns are kept along with the present hydrant spacing, and all the required fire and life safety codes are strictly adhered to, there would be no need for additional fire protection. Creation of the alley system running east-west between Folsom and Harrison Streets would in all probability assist the Fire Department in providing protection rather than hinder it.[2]

The present personnel at Stations 35, 1, 8, and 13 would be able to provide adequate service to the Project area, with the exception of a major disaster, fire or earthquake. The cumulative effect of the proposed project may increase the demand for fire protection services.[3]

San Francisco is experiencing accelerated development in the downtown and South of Market areas. Since new highrise buildings must comply with Life Safety provisions of the San Francisco Building Code, most fires in these buildings can be expected to yield to minimum response by the Fire Department. Since all of these buildings will be of Type 1, reinforced concrete construction, the chance of fire that spreads from building to building is relatively small.

On the average, replacing older, more vulnerable occupancy structives with higher quality, greater occupancy highrise buildings probably has no measurable effect on the need for fire protection.

3) **Schools**

Household composition of the project area will not be known until site specific development occurs. The proposed Plan does not require any mix of household types within the project area. The proposed Plan encourages small units by establishing density calculations based on height and bulk limitations. This may discourage large scale construction of family-sized units.

Communication with the San Francisco Unified School District indicates that all potential new enrollment from Rincon Hill could be accommodated either at nearby schools or by providings bus transportation to other schools. San Francisco schools are currently under-enrolled; thus additional students could be accommodated in the existing school system.[4] If the School District were to lease their surplus school sites for other uses, this could decrease the ability of the School District to adapt to increased enrollment.

4) **Water Service**

Projected water demand upon maximum build-out of the proposed Plan would be approximately 1.9 million gallons per day. (Calculations for water demand are on file and available for public review at Office of Environmental Review, Department of City Planning, 450 McAllister Street, San Francisco, CA 94102). Water supply in San Francisco is not a problem except during periods of drought.

Existing water mains in the project area vicinity would be capable of handling the increased demand, particularly over a long-term frame. However, individual buildings developed in the future could be required to install their own supply pipe from the central street water main. Such a requirement would be made upon review of applications for new water hook-ups.[5]

5) **Wastewater Service**

Dry-weather waste water flows at maximum buildout would be about 1.9 million gallons per day (MGD). (Projections are based on 90-100% of water demand projections.) Project flows would represent a net increase over current flows. Existing sewer mains could serve Plan build-out. Dry-weather flows from the project area are presently treated by the North Point Water Pollution Control Plant (NPWPCP). However, when the clean water facilities are completed the Southeast Water Pollution Control Plant (SWEPCP) will handle the dry-weather flows. No expansion of the present collection and treatment system would be necessary to serve the proposed Plan area.[6]

Build-out of the proposed Plan area would not increase overflows to the Bay (and ocean) because the Channel Outfalls Consolidation Project would be fully implemented before Plan completion.[6]

6) Solid Waste

Maximum build-out under the proposed Plan would generate up to 43 tons of solid waste per day. (Calculations for solid waste are on file and available for public review at Office of Environmental Review, San Francisco Department of City Planning, 450 McAllister Street.) Project waste would represent a net increase in the amount of solid waste collected in the area. The Golden Gate Disposal Company anticipates no problem providing additional collection.[7]

NOTES - COMMUNITY SERVICES

1) Captain Forny, Southern Police District, personal communication, 21 December, 1981.

2) Chief Murphy, Support Services, San Francisco Fire Department, personal communication, 5 January, 1982.

3) Sullivan, Joseph A., Chief Support Services, San Francisco Fire Department, letter communication, 22 December, 1981.

4) Walker, Robert, Student Assignment Office, San Francisco Unified School District, letter communication, 6 January, 1982.

5) Nakagaki, M., Assistant Manager, San Francisco Water Department City Distribution Division, letter communication, 12 January, 1982; Wentworth, Cy, San Francisco Water Department, personal communication, April 5, 1984.

6) Francies, M., Engineer, San Francisco Clean Water Program, Cleanwater Engineering, letter communication, 12 January, 1982.

7) Garbarino, F., Office Manager, Golden Gate Disposal Company, personal communication, 11 January, 1982.

K. Growth Inducement

At full build-out, the Rincon Hill Plan could provide about 13,400 new jobs in office, managerial, retail sales, commercial services, light industrial and maintenance positions in all three subareas. The proposed Plan would create a major new residential neighborhood containing approximtely 3,700 to 6,800 dwellings units that could respond to housing demand generated by new residents, including housing demand generated by employment growth in the downtown (C-3) districts. Applying the Office Housing Production Program (OHPP) formula, assuming that, residence patterns of total commercial build-out would be similar to those of C-3 office workers, there would be a demand for about 4,440 dwelling units in San Francisco. This unit demand could be met by Rincon Hill residential development, with additional units available to respond to additional demand.

The Rincon Hill Plan would further increase the attractiveness of this portion of the South of Market as a developing residential area of the city. Located to the north and southwest of Rincon Hill Plan Area, along the Embarcadero roadway, is the Rincon Point - South Beach Redevelopment Area which will involve major public improvements for streets and utilities (Rincon Point/South Beach Final EIR, November 1980). The redevelopment will consist of between 2,000 and 3,000 residential units, in addition to retail, office and hotel uses, open space/recreation areas and a small boat harbor. Market forces would affect the rate of residential development in both the Rincon Hill and redevelopment areas, which could be somewhat competitive with each other.

Residential development in Subareas One and Two, which would be accompanied by retail, commercial service and office uses, could stimulate growth in commercial/industrial Subarea Three. New office development in Subarea Three is likely to continue; currently there are two applications on file with the Department of City Planning for office development: 84.41E, Hills Brother site; and 83.213EV, 59 Harrison. Office development in the South of Market, particularly the eastern portions, is part of a continuing land use succession process whereby blue collar uses have been replaced with office and service uses (e.g., blueprintig services and architectural firms). As noted, in discussion contained in the Land Use Setting sections, the migration of industrial and manufacturing activities further south, or out of the city, reflects a pattern that has developed nationwide. Over the long term future (since full Plan build-out is not expected until after 2000) advances in technology will play a vital role in determinig the type of non-residential in Subarea Three, which could render land use activities, as we know them today, obsolete.

V. MITIGATION MEASURES

The proposed Rincon Hill plan establishes policies and objectives which would govern future development in Rincon Hill. As a policy-making document, the Plan is designed to mitigate impacts which could occur in the absence of controls. The mitigating measures contained in the proposed Plan are identified below by subject. Other measures that would address impacts of the proposed Plan but are not included in the Plan and which may be considered are also identified.

Although mitigation measures are incorporated into the Plan's overall framework, conformity with the proposed Plan would not preclude site-specific mitigation measures from being required. Such measures would be identified as necessary during review of individual development proposals when they are submitted.

A. Land Use

Mitigation Measures Incorporated into the Proposed Plan

Conditional use approval by the City Planning Commission would be required of any new building/structure or addition of floor area equal to 20% or more of existing buildings or structures. Further, in considering any application in the Rincon Hill Mixed Use District under Section 303 of the Planning Code, the City Planning Commission would consider conformity to the Rincon Hill Plan, a part of the Master Plan. This mitigation is built into the proposed Plan to assure that all site-specific development be reviewed with adequate public input before the Planning Commission to prevent projects from being approved which might have possible adverse effects or otherwise not be in conformity with the Master Plan.

B. Visual Quality and Urban Design

Mitigation Measures Incorporated into the Proposed Plan

The proposed Plan includes new height and bulk controls which have been established to meet the criteria of the Urban Design Element of the Comprehensive Plan. The new height districts are premised on the following design principles: 1) the highest towers should be clustered near the top of a hill with heights stepping down as elevation decreases; 2) the heights of towers should be varied to avoid visually lining up or benching at a single level; 3) the towers should be organized so as to avoid excessive screening of downtown views from the Bay Bridge. In addition, the Plan contain new bulk controls intended to make the tops of buildings slender, their silhouettes stepped and tapered.

The proposed Plan has specific site guidelines for preservation of older buildings worthy of retention. In this regard the Plan would encourage the integration of old buildings characteristic of significant periods of time or style with new construction. Sites encouraged for preservation are: 1) residential units on Guy Place; 2) Sailors Union of the Pacific; 3) Klockars Blacksmith Shop; 4) Hills Brothers; 5) Joseph Magnin Warehouse; 6) Hathaway Warehouse; 7) Union 76 Tower; 8) Coffin-Reddington Building.

The Plan would encourage developers to provide a visually interesting, pedestrian-oriented mid-block alley network including sidewalk widenings, decorative paving, lighting, seating and street trees. Such improvements would help break up the massive City blocks in the area to provide a more human scale and could be counted towards public open space requirements.

In addition, the proposed Plan suggests other types of public open spaces that would be acceptable (although developers could also propose other forms): a pedestrian overpass over Fremont Street, rooftop parks on intercept parking garages on Beale and Main Streets, and a park around the Bay Bridge anchorage and on top of development along Spear Street. These open space facilities, however, could not be used to satisfy residential open space requirements.

C. Cultural and Historic Resources

Mitigation Measures Incorporated into the Proposed Plan

The proposed Plan identifies preservation guidelines to be applied as criteria by the City Planning Commission in reviewing conditional use applications for eight specific sites: Sailors Union of the Pacific; Klockars Blacksmith Shop; Hills Brothers; Joseph Magnin Warehouse; Hathaway Warehouse; Union Oil Tower; the Guy Place Housing; and Coffin-Reddington Building.

Measures for Consideration

Prior to excavation the sponsors of individual development projects would retain an archeologist to instruct all work crews involved in the excavation phase of the project concerning possible archeological finds on site and procedures to be followed in the event of such finds. The archeologist would examine the site and would consult with the environmental review officer and the Secretary to the Landmarks Preservation Board prior to such instruction to determine the full and specific content of that instruction. Should evidence of cultural or historic artifacts be found during project excavation, the archeologist would inspect the site and assess the significance of the find, and report the find to the Environmental Review Officer with all deliberate speed. The Environmental Review Officer would then recommend specific mitigation measures, if necessary, and recommendations would be sent to the state Office of Historic Preservation. Excavation or construction which might damage the

discovered cultural resources would be suspended for a maximum of four four weeks to permit inspection, recommendation and retrieval, if appropriate.

D. Housing

Mitigation Measures Incorporated into the Proposed Plan

The proposed Plan would address the issue of provision and retention of low and moderate cost housing in the following ways:

1) Encourage the retention of existing low cost units on Guy Place or their replacement in new structures on the alley at comparable rates;

2) Permit up to a 20% increase in height (above the basic "as of right" height for the site) only if a percentage of the housing units are provided at low/moderate-income rates.

The proposed Plan provides a development envelope which could accommodate a large number of units as well as allowing maximum design flexibility for unit size, permitting the creation of small, compact units as a means of lowering unit cost and providing high density housing.

E. Transportation

Mitigation Measures Incorporated into the Proposed Plan

The provision of 3,700 to 6,800 new housing units close to the downtown area would tend to demand on the regional highway and transit systems (AC Transit, Golden Gate Transit, Sam Trans, SP/Caltrain) by commuters. The proximity of new housing to downtown employment opportunities would encourage journey-to-work trips by foot or by short local transit trips.

The Plan proposes several distinct transportation-related elements linking Rincon Hill project area blocks with adjacent downtown and waterfront locations, promoting alternative modes of travel while minimizing auto trips.

Pedestrian Trips

Mitigation Measures Incorporated into the Proposed Plan

Redesign of Main, Beale and Spear Streets to create more residentially-scaled streets, through widening sidewalks. This would also improve pedestrian access to the downtown.

Encourage maximum pedestrian activity by designing a human-scale, east-west, mid-block walkway system between Folsom and Harrison street.

Measures for Consideration

Develop safe pedestrian crossing of The Embacadero roadway from the pedestrian alleyway proposed in the Plan to the waterfront park as adopted in the Rincon Point-South Beach Redevelopment Plan.

Transit

Measures for Consideration

The proposed Plan encourages the development of direct transit service, as demand warrants, to serve Rincon Hill. The measures zed below would serve the Rincon Hill area as well as the adjacent Rincon Point/South Beach and Yerba Buena Center Redevelopment Areas. All are also included as mitigation measures in the Downtown Plan EIR:

1) Extension of existing Muni routes currently terminating at the Transbay Terminal (Routes 6, 31 and 38) into the South of Market area. Direct service on these lines to Rincon Hill could be provided more efficiently with the implementation of a new exclusive bus lane down First Street to Folsom Steet, to Fremont Street. This would open Rincon Hill access to the Richmond district as well as a connection with regional transit from Transbay Terminal.

2) Construct a Muni Metro turnaround at The Embarcadero and extend service to the vicinity of Fourth and Townsend Streets. The turnaround is Muni's highest priority rail project. The design would permit 48 trains per hour, an increase of 18 trains per hour over the 30 trains per hour that the system is designed to move. A turnaround loop constructed at the foot of Market Street (beyond the Embarcadero Station) would improve Muni Metro service reliability and reduce running times by facilitating LRV turnaround. This would permit the extension of Metro service to Fourth and Townsend Streets, which would serve residential development in the Rincon Hill and Rincon Point/South Beach areas. It would also serve employees in the developing South-of-Market Area and CalTrain riders. Ridership on the extension is projected to be between 15,000 and 22,000 trips a day. The extension would provide greater utility to San Francisco residents.

3) Refine proposals and implement the Muni "E" streetcar line. The E-line would provide service between the major activity centers of Fort Mason-Fisherman's Whart along the Embarcadero to the Southern Pacific Station at Fourth street. The ridership market for this service is expected to be residents, shoppers and workers along the Waterfront.

The Metro turnaround and extension, and the "E" line described in items 2 and 3 are all being analyzed as alternatives to the Embacadero Freeway Removal in the I-280 Transfer Concept Program. To best serve Rincon Hill, the Metro extension and the "E" line should have stops in the Plan area within proximity to the east-west pedestrian alleyway.

Develop a common transit fare system, or regional transit pass, that would allow a passenger to transfer between systems without having to obtain a new ticket on each system. One approach would be to expand the existing system of discount transfers between Muni and the regional transit agencies to include Golden Gate buses and Sam Trans service. A region-wide transit pass would require transit funding to be handled on a regional basis rather than on the current system of transit districts. A regional transit pass would require transit funding to be handled on a regional basis rather than on the current system of transit districts. A regional transit pass would reduce the cost and the complexity of a multi-system transit trip and would allow agencies that now provide competing service (BART/AC, SamTrans/CalTrain, Muni/BART, Golden Gate, SamTrans) to optimize the structure of routes and service provided. Service to transit users throughout the region would be improved by the convenience and potentially reudced costs of interline transit transfers.

Past experience indicates that this could result in overall increases in daily ridership. The BART/Muni Fast Pass can be seen as a first project (under MTC's sponsorship) that provides for regional transit passes that are sold at the cost of a single pass. Eventually, a system of regional passes could be developed that would allow for interline transfers without any incremental costs to the patron.

Trip Making Surveys

Measures for Consideration

As development takes place in the Rincon Hill Plan area, trip-making surveys should be taken to identify actual travel patterns (trip generation and proportion of travel by mode) of mixed residential/commercial activities. Surveys should be conducted in coordination with the Department of City Planning.

From individual building surveys of the type described above, commercial developers should establish Transportation Systems Management (TSM) programs to identify ways of minimizing auto trips. If increasd carpooling and vanpooling is feasible, such arrangements should be coordinated through RIDES for Bay Area Commuters.

To provide an alternative to private automobile ownership, Rincon Hill could implement an auto rental program similar to what is currently being experimented with in San Francisco's Park Merced residential community. Rincon Hill's central location and access to downtown transfer points could make such a program successful for resident use for occassional trips that are not convenient by walking or transit.

Circulation

Measures for Consideration

Parking access to new development should be provided off-streets running in the northwest-southeast direction (Steuart, Spear, Main, Beale, Essex) to minimize disruption to arterial traffic flow on Folsom and Harrison Streets.

Vehicle access onto both First and Fremont Streets should be limited to minimize vehicle conflicts; access should use the mid-block alleyways.

Parking

Measures for Consideration

Parking provided for commercial development in the Plan area should be made available for short-term (visitor) use.

To the extent possible, mixed residential/commercial development in Subareas One and Two should establish joint parking programs to maximize utilization. Since trips in commercial areas are often linked trips (i.e. within one auto trip, visitors may make numerous stops at different establishments), parking demand could be reduced through coordination of parking facilities. Parking utilization could also be increased through shared parking between residential and commercial uses, where residents could use spaces in the evening, after business hours.

Construction Impacts

Measures for Consideration

Project developers and construction contractors should meet with appropriate city agencies to determine feasible construction traffic mitigation measures satisfactory to all parties. Such measures would include the coordination of Rincon Hill construction projects with constructon activities for nearby projects in order to minimize cumulative construction traffic impacts due to lane closures and any street excavations.

Developers should be required to provide off-street parking for construction workers at the project site, or at an off-site location; and/or encourage construction workers to use transit by providing the services of a transportation broker during the construction period.

F. Air Quality

Mitigation Measures Incorporated into the Proposed Plan

Given the project area's close proximity to downtown the proposed Plans's objectives for improving pedestrian access, and increase in parking ratios with closer proximity to the downtown area, there could be a reduction in vehicle miles traveled by would-be commuters or residents who are Rincon Hill employees thus reducing potential air quality emissions. Residents could choose to walk or take transit to work.

Measures for Consideration

Implement mitigation measures identified for transportation impacts to also mitigate air quality impacts. Increasing roadway capacity (where feasible and cost effective), reducing vehicular traffic through increased ridesharing (carpool, vanpool, and transit), and implementing flexible and/or staggered work hours would reduce local and regional emissions of all pollutants.

Require project sponsors to sprinkle demolition sites with water continuously during demolition activity; sprinkle unpaved construction sites with water at least twice per day; cover stockpiles of soil, sand, and other such material; and sweep streets surrounding demolition and construction sites at least once per day to reduce TSP emissions. Require project sponsors to maintain and operate construction equipment so as to minimize exhaust emissions of TSP and other pollutants, by such means as a prohibition on idling motors when equipment is not in use, and a requirement for specific maintenance programs (to reduce emissions) for equipment that would be in constant use for much of a construction period.

E. Noise

Mitigation Measures Incorporated into the Proposed Plan

The proposed Plan recommends that bedrooms or whole units be insulated from noise by solaria which provide not only sound insulation but also usable garden space and, on the south, solar heating. To encourage this use, the plan permits solaria to be counted as required private, usable open space.

The proposed Plan recommends the use of sound-rated windows, deep balconies and solid balcony rails to control noise for dwellings.

The land use component of the Plan incorporates the principle that noise control for open spaces can be provided by using buildings themselves as barriers to obstruct noise. The land use plan encourages residential areas of development to be located away from the Bay Bridge and freeways. A buffer of commercial and industrial use between the proposed residential areas and the principal noise sources would permit street life in the residential environment to occur with minimal disruption from the noise of the major roadways encircling Rincon Hill.

H. Energy Mitigation

Mitigation Measures Incorporated into the Proposed Plan

The Plan encourages passive solar heating by permitting solaria to be counted as required private usable open space.

I. Seismic Mitigation

Measures for Consideration

Emergency response plans and response drills for all buildings, and instructions/education for earthquake emergencies to its occupants could be coordinated through the Office of Emergency Services, or enacted into ordinance by the Board of Supervisors

Building standards for window cushioning, external facade mountings, including arcades and awnings, could be upgraded by action of the Board of Supervisors to ensure pedestrian safety in the event of a major earthquake.

The Bureau of Building Inspection could institute a special program specifically for the purposes of inspecting the seismic safety and stability of construction.

The Board of Supervisors or Mayor's office could provide low-interest loans to private building owners to reinforce buildings determined to be potentially hazardous.

VI. SIGNIFICANT ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED IF THE PROPOSED PROJECT IS IMPLEMENTED

Implementation of the Rincon Hill Plan would introduce residential and supporting commercial uses in this portion of the South of Market area, which would preclude new industrial development in Subareas One and Two. (Industrial development would be permitted in Subarea Three). The corresponding increase in resident and employee population would increase use of transportation systems, which would contribute to cumulative City-wide demand as analyzed in the Downtown Plan Draft Environmental Impact Report (EE81.3). Mitigation measures are available that would reduce transportation effects of the Rincon Hill Plan to insignificant levels.

Residential development under the proposed Plan is in itself mitigative by locating residents in close proximity to the downtown area, the City's largest employment center. This relationship would reduce demand on regional and local transportation systems by workers who would otherwise have to commute farther distances to work. To the extent that Rincon Hill development would constitute a portion of the forecasted cumulative non C-3 growth analyzed in the Downtown Plan EIR, mitigating measures contained in the proposed Downtown Plan would reduce otherwise significant cumulative transportation impacts.

Additional travel to and from San Francisco generated by development under the Rincon Hill Plan would contribute to cumulative pollutant emission increases which would cause violations of air quality standards (Total Suspended Particulates and Nitrogenous Oxides), with concomitant health effects, reduced visibility and, in combination with additional new development elsewhere in the Bay Area, increased formation of acid rain downwind.

Development in the Rincon Hill area would have a significant seismic safety impact as it would accommodate a larger population, therefore exposing a higher concentration of pedestrians in Subareas One and Two to falling objects from larger buildings. This would create congestion, impeding the access of emergency vehicles responding to earthquake-related emergencies. Development on property along the waterfront and eastern portions of the Plan area in Subarea Three would be subject to greater damage (very strong ground shaking, liquefaction, subsidence) than that in Subareas One and Two due to underlying Bay fill. However, requirements under the Uniform Building Code would improve the structural ability of buildings to withstand major seismic events, and continued development would replace non-seismic reinforced buildings with structures built to current code standards, thereby reducing some risk.

VII. ALTERNATIVES TO THE PROPOSED PROJECT

1) No-Project Alternative

Under the No-Project alternative, no actions would be taken by the Planning Commission to change the underlying land use policies and zoning which govern the development of the project area. Thus, existing uses would remain and new uses would be developed, subject to the economic forces of the private real estate market. It is assumed that all existing uses would remain in the foreseeable future but that upgrading and replacement of uses within the existing zoning would occur.

The present zoning in the project area encourages other uses over housing by the designation of housing as conditional use. The closest residential district to the project area is RC-2. Thus, a residential density of 1 unit per 600 square feet would be permitted through conditional use in Rincon Hill. Housing construction would not be expected to occur given the project area's relative isolation to neighborhood commercial services and the scale/ character of existing development. However, if adjacent residentially proposed project areas in the South of Market build-out (Rincon Point-South Beach, and Mission Bay), housing construction may be stimulated in Rincon Hill. Housing would be built as present uses terminated or converted through private market forces.

In general, the environmental characteristics of this alternative would be the same as described in the Environmental Setting Section of this report. Impacts associated with development under the no-project would continue to be evaluated as individual projects are proposed. Such impacts cannot now be accurately determined since they would depend on the type of development and chosen location within the project area. Market forces, independent of a change in land use regulations, would determine the extent of potential new development.

The project sponsor has rejected this alternative because it would not maximize the number of housing opportunity sites which could be created in the city without encroaching on existing residential neighborhoods.

2) Alternative 2A: RC-4 in Subareas One and Two with Current Height Limit (105')

This alternative would consist of a rezoning from the present M-1 in Subareas One and Two to RC-4, with the retention of the 105 feet height limit. At maximum build-out, if the 23 acres of land (exclusive of streets and alleys) were to be redeveloped for mixed-use housing under this alternative, up to 5,000 dwelling units and 4,800,000 gross square feet of commercial space could be

constructed. This alternative would not contain any special parking, height or open space provisions for Subarea Three. The developable floor area (FAR of 5:1) would remain the same as that identified in the proposed Plan.

Housing would be a principal use, on any building floor. Commercial uses permitted in C-2 districts would be principal uses in or below the ground story, and conditional above the ground floor. The maximum floor area ratio (FAR) for commercial uses would be 4.8 times the lot area.

This alternative would be different from the project in height and form. Implementation would result in buildings approximately 300 feet shorter than the tallest towers permitted in the project, and about 20 feet taller than the lowest height district in the proposed Plan. Buildings could cover entire site areas minus rear-yard setback requirements for dwelling units. This would result in a built-out skyline of bulky buildings with no tapering or variations in height. Views looking onto the city from the Bay Bridge, and away from the city toward East Bay could potentially be more obstructed than what the proposed Plan would permit. Despite the proposed Plan permitting taller buildings than this alternative, design guidelines call for tall slender towers of varying heights to avoid excessive screening of downtown views from the bridge.

Historic, cultural and architectural impacts of this alternative could potentially have greater impacts than the proposed Plan. There would be no Master Plan policies for retention of any buildings in the project area. Buildings without landmark status could be demolished without specific code provision calling for retention. This differs from the proposed Plan, which encourages retention of several buildings identified for their cultural/architectural merit.

Alternative 2A would not be similar to the proposed Plan with regard to preservation of existing housing. In contrast to the Plan's policies and height reduction which would encourage retention of the existing housing on Guy Place, there would be no such policies or height reduction in this alternative. Alternative 2A could provide approximately 3,700 units at full build-out. Full build-out of commercial space under Alternative 2A would be over four times greater than that permitted in Subareas One and Two under the proposed Plan.

Potential impacts on community services under Alternative 2A could be greater than those associated with the proposed project due to over a five-fold increase in commercial space. Alternative 2A's energy impacts from residential consumption would be similar to the Plan; however, commercial consumption would be about five times greater than the project.

Implementation of this alternative would eventually result in demolition of existing structures in the project area.

Transportation, air quality and noise impacts associated with building construction would generally be similar to the proposed Plan.

The transportation, circulation, transit and parking impacts resulting from alternative 2a would fall within the range of those impact resulting from the housing component of the proposed Plan. On the other hand, transportation, circulation, transit and parking impacts resulting from the commercial build-out of alternative 2a would be much greater (potentially up to five times) than the impacts resulting from the proposed Plan.

The City rejected this alternative because: 1) it would result in a skyline which is considered to be less attractive than the Plan as proposed; and 2) it would result in what is considered an excessive amount of rezoned commercial land. In order to develop the maximum commercial square footage, maximize the number of permitted residential units, and maximize the buildings' heights, the buildings would have a bulkier appearance than the project. In addition, this alternative, through the massing of the buildings at one height level, would contribute to a benched appearance of roof lines, and would not provide the same level of stepping in scale achieved with the proposed Plan.

3) **Alternative 2B: RC-4 in Subareas One and Two with Proposed Height Limit and Bulk Controls for New Construction**

This alternative would be the same as Alternative 2A with the exception that the proposed height limits and bulk controls would be similar to the proposed Plan. Not included in this alternative would be the guidelines for specific site preservation which are in the proposed Plan.

Impacts from this alternative's height and bulk guidelines would be the same as the proposed project. The number of housing units which could be constructed at maximum build-out under this alternative would be the same as under Alternative 2A. However, incorporation of the height limits and design guidelines proposed in the Plan in Alternative 2B would result in a much larger average unit size than that under Alternative 2A (greater than 1500 square feet). Impacts associated with noise, energy, historic, culture, architecture, community services, and transportation would be similar to Alternative 2A.

The project sponsor has rejected this alternative because: 1) it would result in what the City considers an inefficient, uneconomic use of space; and 2) an excessive amount of rezoned commercial land. A combination of RC-4 zoning, a maximum of 4.8 FAR for commercial space, and the proposed height limits would make it infeasible to achieve maximum height and bulk of potential new buildings in the proposed 150 ft. to 400 ft. height districts. To achieve the maximum building dimensions, dwelling units would have to be excessively large since size is the only adjustable factor when all other givens are known (maximum commercial square footage, maximum number of dwelling units).

VIII. SHORT-TERM vs. LONG-TERM CONSEQUENCES OF ADOPTING THE PROPOSED RINCON HILL PLAN

In the long-term, implementation of the Rincon Hill Plan would change the land use designation in the area, creating a major residential resource which would respond to an identified need for additional housing San Francisco. In being located near the Downtown C-3 district, it would also offer housing to downtown employees who would otherwise be commuting over farther distances. Thus, implementation of the Plan would reduce demand on regional and local transportation systems, with a corresponding reduction in air pollution emissions.

Implementation of the proposed Plan in conjunction with cumulative growth examined in the Downtown Plan EIR, however, would lead to violations in air quality standards for Total Suspended Particulates (TSP) and Nitrogen Oxides (NOx), with concomitant health effects, reduced visibility, and, in combination with other new development in the region, increased formation of acid rain and increases in ozone levels outside of the Bay Area.

Over the long-term, the area would contain a higher concentration of people exposed to hazards resulting from a major earthquake. Pedestrians in the vicinity of high- and mid-rise towers proposed in Subareas One and Two would be exposed to falling debris. Emergency access would also be obstructed. All new buildings would be subject to current seismic construction standards to reduce the risk of injury to occupants inside. Considered together with the fact that Subarea One and most of Subarea Two are underlain with Franciscan bedrock, buildings located here would tend to be more structurally stable than buildings in Subarea Three (which has poorer soil stability).

IX. IRREVERSIBLE ENVIRONMENTAL CHANGES

The proposed Plan would allow for new residential and commercial high- and mid-rise development in the Rincon Hill area and would thus commit such uses to continue in the future. Construction materials and energy used for the new development would involve use of some non-renewable resources. Continued development would also result in continuing increases in travel demand. The additional trips, plus construction activities from new development, would subject the region to future air quality problems from increases in TSP and NOx emissions.

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San Francisco, CA 94111

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153 Keanry Street
San Francisco, CA 941089

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Lincoln Property Company
220 Sansome Street
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Hills Bros. Acquisitions, Inc.
2 Harrison Street
San Francisco, CA 94105

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4740 Folsom Blvd., Suite A
Sacramento, CA 95814

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Dommer and Byars
84 First Street, 3rd floor
San Francisco, CA 94105

XII. Appendices

LIST OF APPENDICES

		Page
Appendix A	Final Initial Study	A-1
Appendix B	Transportation	B-1
Appendix C	Air Quality	C-1

DEPARTMENT OF CITY PLANNING 450 McAllister St. - 5th Floor
(415)558-5260

APPENDIX A

NOTICE THAT AN ENVIRONMENTAL IMPACT REPORT IS DETERMINED TO BE REQUIRED

Date of this Notice: May 20, 1983

Lead Agency: City and County of San Francisco, Department of City Planning
450 McAllister St. - 5th Floor, San Francisco CA 94102

Agency Contact Person: Joan Carson **Tel:** (415) 558-5260

Project Title: 82.39E: Rincon Hill Area Plan

Project Sponsor: Department of City Planning

Project Contact Person: Joan Carson

Project Address: Area encircled by the Bay Bridge and the Embarcadero Freeway, generally bounded by Bryant, Folsom, Steuart and Essex Streets

Assessor's Block(s) and Lot(s): All of Assessor's Blocks 3744-3748, 3767-3769; portion of Assessor's Blocks 3749, 3764, 3765 and 3766

City and County: San Francisco

Project Description: Area Plan and Special Use District governing development in Rincon Hill Subarea One (High Rise Residential), Subarea Two (Midrise Residential) and Subarea Three (Industrial/Commercial), to create a new residential community with supporting and buffering commercial and industrial uses, with maximum heights of 400 feet, and reduction of some heights to 40 feet. A maximum of 3700 to 7500 dwelling units could be created.

THIS PROJECT MAY HAVE A SIGNIFICANT EFFECT ON THE ENVIRONMENT AND AN ENVIRONMENTAL IMPACT REPORT IS REQUIRED. This determination is based upon the criteria of the Guidelines of the State Secretary for Resources, Sections 15081 (Determining Significant Effect), 15082 (Mandatory Findings of Significance) and 15084 (Decision to Prepare an EIR), and the following reasons, as documented in the Initial Evaluation (initial study) for the project, which is on file at the Department of City Planning: (SEE TEXT)

Deadline for Filing of an Appeal of this Determination to the City Planning Commission: May 31, 1983.

An appeal requires 1) a letter specifying the grounds for the appeal, and 2) a $35.00 filing fee.

Alec S. Bash

Alec S. Bash, Environmental Review Officer

The proposed project would be the creation of a new Special Use District in Rincon Hill, to be made part of the Planning Code, and an area plan to be made part of the City's Master Plan. The project would include: (1) a zoning reclassification of approximately 39 acres of land from an M-1 (Light Industrial) district to accommodate potential mixed-use development containing residential, retail/commercial space, parking, and open space; (2) additional open space requirement on future developments where the current M-1 zoning would be maintained; (3) a new height and bulk controls map for the area; (4) design guidelines for future development; (5) guidelines for the creation of a new east-west alley system; and (6) mandatory provisions addressing the design solutions to the problems of specific sites.

The proposed project encompasses twelve blocks in the northeastern portion of San Francisco encircled by the Bay Bridge and the Embarcadero Freeway. Immediately bounding the project area are Bryant, Folsom, Steuart, and Essex Streets. The Assessor's Blocks/Lots of the project area are shown in Figure 1.

The project area contains approximately 55 acres, 18 of which are alleys and streets. The bulk of the area is currently within an M-1 district, with two blocks within a P (Public Use) district. Buildings devoted to manufacturing, printing, storage, office and service activities to seafarers are dispersed throughout the area, not all of which are in use. Parking lots, including the Golden Gate Bridge Highway and Transit District bus parking lot, are in the project area. Although the area is not residential in nature, there are approximately 16 residential units located on Guy Place.

The proposed Special Use District is to be divided into three subareas. (see Figure 2) Subarea One (High-rise Mixed Residential/Commercial) accounts for eight percent of the net land, Subarea Two (Mid-rise Mixed Residential Commercial) constitutes 54% and Subarea Three (Commercial-Industrial) accounts for 38% of the net land in Rincon Hill.

Subarea One would involve a zoning reclassification from M-1 to a high-rise residential/commercial zone. This new zone would be applied to a limited area, intended to encourag the development of no more than four residential/commercial towers to be located on Assessor's Blocks 3747 and 3748 (see figure 2). An estimated 980-1,460 dwelling units and 139,000 to 188,000 gross square feet of commercial space could be developed in new buildings which would have to comply with the Plan's controls related to massiveness and cumulative impact of tall buildings. Developers in this zone would be required to create open space which would include, but not be limited to, the creation of a new east-west alley system through blocks 3747 and 3748.

Subarea Two would involve a zoning reclassification from M-1 and P zones to a mid-rise residential/commercial zone. At maximum build-out 2,700 to 6,100 residential units would be constructed in this subarea; and approximately 538,000 to 744,000 gross square feet of retail/commercial space could be added to the subarea through new construction or conversion (figure does not include retail/commercial space presently in use). Provisions for an open space, east-west alley system in the middle of blocks between Folsom and Harrison Streets, and design controls, would be similar to the high-rise zone.

Specific requirements for residential high-rise and mid-rise zones in Subareas One and Two will be discussed in the Environmental Impact Report.

Subarea Three of Rincon Hill would be confined to the perimeter of Subarea Two. The zoning requirements for this subarea would be the same as the existing M-1 district, with the addition of an open space requirement and a reduction in the allowable height limits.

ENVIRONMENTAL EVALUATION CHECKLIST
(Initial Study)

File No: 82.39E Title: Rincon Hill Special Use District

Street Address: Rincon Hill Assessor's Block/Lot: (see figure 1 attached)

Initial Study Prepared by: Joan Carson

A. COMPATIBILITY WITH EXISTING ZONING AND PLANS. Could the project:	YES	NO	DISCUSSED
1. Require a variance, special authorization, or change to the City Planning Code or Zoning Map?	X		X
*2. Conflict with the Comprehensive Plan of the City and County of San Francisco?	X		X
*3. Conflict with any other adopted environmental plans and goals of the City or Region?		X	

Subareas One and Two of the proposed Rincon Hill Special Use District may not comply with some provisions of the San Francisco City and County Comprehensive Plan. The relationship of these subareas to the Comprehensive Plan will be discussed in the Environmental Impact Report.

Subarea Three of the proposed project would not conflict with objectives and policies in the Comprehensive Plan of the City. The Rincon Hill Plan would retain the M-1 (Light Industrial) District in Subarea Three; however, it would encourage some office development to occur in the subarea. Although the M-1 district is intended primarily for light industry as set forth in the Planning Code, office use is also permitted as a principal use in the M-1 district. Certain types of space intensive businesses in industrial areas are presently encouraged by the Master Plan.(See Policy 11 of Objective 4 of Commerce and Industry Element, and Policy 2 of Objective 6 of Commerce and Industry Element.) While office use is permitted in M-1 districts, the proposed Plan would decrease the intensity of office development which could occur presently by lowering the present height limit from 105 feet to 80 and 40 feet. This is in recognition that the nature of the M-1 district is to provide support services for the downtown core, rather than to serve primary office development.

II. Summary of Potential Environmental Effects

A. Potentially Significant Effects

The potentially significant environmental effects identified in this Initial Study include land use, visual quality, population, transportation, noise, air quality, geology, energy and cultural aspects of Subareas One and Two. For these same Subareas, the project could contribute to effects from cumulative development in the project vicinity in the categories of traffic, noise, air quality, energy consumption, public services and utilities, and growth induction. These issues will be covered further in the Environmental Impact Report (EIR) for the project.

* Derived from State EIR Guidelines, Appendix G, normally significant effect.

B. Insignificant Effects

The effects, listed below, have been determined not to be significant. These topics will not be discussed in the EIR, nor will any topics relative to Subarea Three. Subarea Three warrants discussion in this Initial Study solely under General Plan Compatibility and Land Use, inasmuch as it involves no change in use or activities.

General Plan Compatibility: Subarea Three of the proposed project would retain its present M-1 District designation. Policies in the proposed Rincon Hill Plan would respond to Objective 4, Policy 11, and Objective 6, Policy 2 of the Commerce and Industry Element of the San Francisco Comprehensive Plan by acting to maintain larger, older buildings available to serve land-extensive secondary office uses and supporting service/industrial activities.

Land Use: Development proposed in Subarea Three would be similar to that which could presently occur except with a lower height limit. This reduction in height limit would remove incentives to replace existing buildings by new construction, and inhibit any change in conditions of the environment.

Biology: The proposed project would have no effect on plant or animal life in the project area.

Hazards: The proposed project would not result in increased risk of explosion or release of hazardous substances. Build-out of the project area would result in greater numbers of people in the area, which could increase the difficulty of evacuation during an emergency. This topic will not be discussed in the EIR as mitigation measures are presented in the Mitigation Measures portion of this Initial Study which reduce this potential impact to an insignificant level.

B. ENVIRONMENTAL EFFECTS. Could the project:

	YES	NO	DISCUSSED
1. Land Use			
*a. Disrupt or divide the physical arrangement of an established community?	X		X
b. Have any substantial impact upon the existing character of the vicinity?	X		X

The project area is located in the South of Market, a section of the City with a high concentration of industrial activity. The project area is currently used for light industry, manufacturing, warehouses, parking and secondary office space. The surrounding land uses are parking, light industry, downtown support services, retail-commercial, and some office activities.

The proposed Subareas One and Two would permit high residential density and the increase of retail-commercial development in Rincon Hill. The impacts of the proposed new use districts will be discussed in the EIR in greater detail.

The encouragement of some office development in Subarea Three (retained M-1 district) would be reflective of the present trend of development in the South of Market. Secondary office uses which include administrative support functions such as clerical, data processing or accounting activities, and businesses which provide services to downtown office uses have been expanding into the South of Market area. These uses are located in the South of Market since they require large floor area but are either displaced from existing downtown locations or are priced out of the downtown market.

Since office development has been expanding into the South of Market, it is unlikely that the inclusion of the M-1 district in the proposed plan as a "Commercial/Industrial" district (Subarea Three) would recruit any more interest in the commercial development of the district than exists already.

Secondary impacts from the build-out of Subareas One and Two may affect Subarea Three. These secondary effects on Subarea Three will be discussed in the EIR.

2. Visual Quality

	Yes	No	Discussed
*a. Have a substantial, demonstrable negative aesthetic effect?	X		X
b. Substantially degrade or obstruct any scenic view or vista now observed from public areas?	X		X
c. Generate obstrusive light or glare substantially impacting other properties?	X		X

Subareas One and Two, if developed to the maximum allowed by the project, would be noticeable in many vistas of the downtown skyline, and the forms of specific new structures would be identifiable. Some views from buildings adjacent to the project area could be partially blocked by the projects. Analysis of urban design impacts and of views of the project area from various sites in the City (and the Bay and Oakland-Bay Bridge) will be included in the EIR. Possible impacts on the streetscape from new pedestrian circulation patterns will be evaluated in the EIR.

New buildings constructed within the project area could generate light or glare. Discussion of these effects will be required in site specific evaluations.

3. Population

*a. Induce substantial growth or concentration of population?	X		X
*b. Displace a large number of people (involving either housing or employment)?	X		X
c. Create a substantial demand for additional housing in San Francisco, or substantially reduce the housing supply?		X	X

Build-out of Subareas One and Two could result in a substantial concentration of population. This build-out could probably have a growth inducing effect on Subarea Three; and the project in its entirety could have growth inducing effects on other areas in the South of Market. These issues will be discussed in the EIR.

Creation of the Special Use District would likely cause the displacement of employees and business through the rezoning and resultant escalation of land prices/rent. The allocation of existing density due to the proposed project and the relocation of housing/businesses and displacement of people will be analyzed in the EIR.

The project, upon build-out, would generate a greater supply of housing than the additional demand it would create. Analysis of project housing supply and demand in Subareas One and Two will be presented in the EIR.

4. Transportation/Circulation

	YES	NO	DISCUSSED
*a. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system?	X		X
b. Interfere with existing transportation systems, causing substantial alterations to circulation patterns or major traffic hazards?	X		X
c. Cause a substantial increase in transit demand which cannot be accommodated by existing or proposed transit capacity?	X		X
d. Cause a substantial increase in parking demand which cannot be accommodated by existing parking facilities?	X		X

Subareas One and Two would generate an increase in use of MUNI and regional transit, and vehicle trips to and from the project area. The circulation patterns and volume of automobiles and pedestrians may be affected by the proposed project. As the project area is developed, demands would not be accommodated by existing parking near the project area. Project-related and cumulative impacts for transit and parking demand will be analyzed in the EIR.

5. Noise

	YES	NO	DISCUSSED
*a. Increase substantially the ambient noise levels for adjoining areas?		X	X
b. Violate Title 25 Noise Insulation Standards, if applicable?	X		X
c. Be substantially impacted by existing noise levels?	X		X

Subareas One and Two build-out could not increase substantially the ambient noise levels for adjoining areas; however, the build-out could be substantially impacted by existing noise levels. Title 25, Noise Insulation Standards, would apply to the proposed project. Discussion of a, b, c will occur in the EIR.

6. Air Quality/Climate

	YES	NO	DISCUSSED
*a. Violate any ambient air quality standard or contribute substantially to an existing or projected air quality violation?	X		X
*b. Expose sensitive receptors to substantial pollutant concentrations?		X	
c. Permeate its vicinity with objectionable odors?		X	
d. Alter wind, moisture or temperature (including sun shading effects) so as to substantially affect public areas, or change the climate either in the community or region?	X		X

Subareas One and Two, upon build-out, could have an effect on citywide concentration and on the frequency of violation of the standards. With the proposed change of height and bulk controls in Rincon Hill, new buildings constructed in the area probably would result in the alteration of wind and the creation of new sun shading effects. The above noted effects will receive further consideration in the EIR.

7. Utilities/Public Services

*a.	Breach published national, state or local standards relating to solid waste or litter control?	___	X	X
*b.	Extend a sewer trunk line with capacity to serve new development?	___	X	X
c.	Substantially increase demand for schools, recreation or other public facilities?	___	X	X
d.	Require major expansion of power, water, or communications facilities?	___	X	X

The potential build-out of Subareas One and Two could be accommodated by existing utility lines and public services in the project vicinity. The types of services and where they are located will be discussed in the EIR.

8. Biology

		YES	NO	DISCUSSED
*a.	Substantially affect a rare or endangered species of animal or plant or the habitat of the species?	___	X	X
*b.	Substantially diminish habitat for fish, wildlife or plants, or interfere substantially with the movement of any resident or migratory fish or wildlife species?	___	X	X
c.	Require removal of substantial numbers of mature, scenic trees?	___	X	X

Rincon Hill is a developed urban area. Wildlife is primarily restricted to rats, pigeons, seagulls, and English sparrows. No animal species which is officially protected under either the federal or state Endangered Species Acts. (U.S. Fish and Wildlife Service, 1979a; Department of Fish and Game, 1978), was noted in the project area.

Few mature trees have been noted on any sites in the project area. Build-out of the project area could potentially impact the hillside surrounding Essex Street which contains some trees, but mostly shrubs. There will be further discussion of biology in the EIR.

9. Geology/Topography

*a. Expose people or structures to major geologic hazards (slides, subsidence, erosion and liquefaction)?	X		X
b. Change substantially the topography or any unique geologic or physical features of the site?		X	

Build-out of the project area would expose new residents and an increased number of workers in the area to such seismic hazards as groundshaking, liquefaction, rapid settlement and ground lurching. These effects will be discussed further in the EIR.

10. Water

*a. Substantially degrade water quality, or contaminate a public water supply?		X	X
*b. Substantially degrade or deplete ground water resources, or interfere substantially with ground water recharge?		X	X
*c. Cause substantial flooding, erosion or siltation?	X		X

There would be no reduction in the quality of surface water due to the proposed project. No lakes, springs or watercourses are located in the project area. Upon build-out, the proposed project would have little, if any, impact on run-off in the project area.

Erosion or siltation could potentially occur from dewatering activities and possible grading as a result of construction effects in the project area. This will be discussed in the EIR.

11. Energy/Natural Resources

	YES	NO	DISCUSSED
*a. Encourage activities which result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner?	X		X
b. Have a substantial effect on the potential use, extraction, or depletion of a natural resource?	X		X

Build-out of the project area would result in a net increase in energy consumption in the project area. It could also have an effect on the potential use of a natural resource. These effects will be considered in the EIR.

12. Hazards

*a. Create a potential public health hazard or involve the use, production or disposal of materials which pose a hazard to people or animal or plant populations in the area affected?		X	
*b. Interfere with emergency response plans or emergency evacuation plans?		X	X
c. Create a potentially substantial fire hazard?		X	

Build-out of the project area could result in greater numbers of people in the area, which could increase the difficulty of evacuation during an emergency. A measure to mitigate the effect of the project on the City's emergency response plan is included in the Mitigation Measures section of this Initial Study.

13. Cultural

*a. Disrupt or adversely affect a prehistoric or historic archaeological site or a property of historic or cultural significance to a community or ethnic or social group; or a paleontological site except as a part of a scientific study?	X	___	X
*b. Conflict with established recreational, educational, religious or scientific uses of the area?	___	X	___
c. Conflict with preservation of any buildings of City landmark quality?	X	___	X

The project area contains distinguished buildings of City landmark quality. Build-out of the area could affect the buildings and disrupt a prehistoric or historic archaeological site. These issues will be addressed in the EIR.

C. OTHER

Require approval of permits from City Departments other than DCP or BBI, or from Regional, State or Federal Agencies?	___	X	___

D. MITIGATION MEASURES

	YES	NO	N/A	DISCUSSED
1. If any significant effects have been identified, are there ways to mitigate them?	X	___	___	X
2. Are all mitigation measures identified above included in the project?	X	___	___	X

A mitigation measure currently proposed as part of the project is listed below. Other mitigation measures will be identified during subsequent environmental review and included in the EIR.

As a requirement of specific site development in the project area an evacuation and emergency response plan would be developed by project sponsors or building management staff, in consultation with the Mayor's Office of Emergency Services, to insure coordination between the City's emergency planning activities and the specific site plans to provide for building occupants in the event of an emergency. Specific site emergency response/evacuation plans would be reviewed by the Office of Emergency Services and implemented by building management before issuance by the Department of Public Works of final building permits.

E. MANDATORY FINDINGS OF SIGNIFICANCE

	YES	NO	DISCUSSED
*1. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	X		
*2. Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals?		X	
*3. Does the project have possible environmental effects which are individually limited, but cumulatively considerable? (Analyze in the light of past projects, other current projects, and probable future projects.)	X		
*4. Would the project cause substantial adverse effects on human beings, either directly or indirectly?		X	
*5. Is there a serious public controversy concerning the possible environmental effect of the project?		X	

1. The cultural and historic aspects of the Subareas One and Two, including subsurface historical sites, if any, and distinguished buildings which includes remnants of the area's past associations with seafaring activities, could be diminished by the projec

2. Transit and traffic aspects of the project, in connection with other reasonably forseeable development in the vicinity, could have cumulatively considerable effects.

F. ON THE BASIS OF THIS INITIAL STUDY:

_____ I find the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared by the Department of City Planning.

_____ I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because the mitigation measures, numbers _____, in the discussion have been included as part of the proposed project. A NEGATIVE DECLARATION will be prepared.

__X__ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

Alec S. Bash
Environmental Review Officer
for

Dean L. Macris
Director of Planning

Date: May 18, 1983

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APPENDIX B: TRANSPORTATION

TRAVEL DEMAND ANALYSIS

The methodology for determining the number of trips by mode and direction is described in "Guidelines for Environmental Review: Transportation Impacts," Department of City Planning, September 1983 (DCP Guidelines). Office and retail trips are split into employee home-work trips and "non-work" trips, which include other employee trips and visitor trips. Residential trips are divided into trips to and from work and non-work trips. These splits vary for daily and peak period trips, as shown in Table B-1.

Each type of trip has its own regional distribution and mode split. Table B-2 summarizes the distribution and travel modes for each trip type. The actual analysis used an individual mode split for each destination. The employee home-work trip distribution is based on the 1982 South of Market Survey (DCP Guidelines, pp. 21-22). Visitor travel information comes from the Embarcadero Center Travel Study (DCP Guidelines, pp. 15-16). The residential trip-making characteristics were developed for the 333 Bush Street study. All analysis assumed maximum build-out as would be permitted under the zoning controls proposed in the Rincon Hill Plan.

The travel demand analysis incorporates the most current information regarding travel characteristics. The actual manner in which Rincon Hill Plan would develop cannot be known. With a full build-out time horizon beyond 2000, it is possible that future residents and employees in the area will demonstrate different travel characteristics. As noted in the EIR, analysis for the Rincon Hill Plan makes no assumptions or forecasts of growth rates or modal shifts, for lack of available reliable information.

Table B-1
TRIP TYPES

		Daily	Peak
Office	Home-Work	57%	90%
	Other	43%	10%
Retail	Home-Work	4%	4%
	Customer	96%	96%
Residential	Work	35%	78%
	Non-Work	65%	22%

Table B-2
RINCON HILL TRIP DISTRIBUTION AND MODE SPLIT

DISTRIBUTION	Off/Ret Home-Work	Office Visitor	Retail Customer	Residential Work	Residential Non-Work
SF (NE)	4%	33%	84%	75%	75%
SF (NW)	10	11	1	10	15
SF (SE)	12	7	2	4	2
SF (SW)	18	13	2	5	5
Peninsula	16	8	3	4	1
East Bay	27	20	6	2	1
North Bay	13	8	2	0	1
TOTAL	100%	100%	100%	100%	100%
TRAVEL MODE					
Vehicle Driver	53%	14%	8%	7%	10%
Vehicle Passenger	11	3	1	2	2
MUNI	15	27	10	55	72
BART					
Daly City	4	8	1	3	8
Transbay	5	16	4	1	0
AC Transit	3	2	0	1	0
SamTrans	1	1	0	0	0
Southern Pacific	2	2	1	0	0
Golden Gate	2	2	1	0	0
Walk	1	26	75	30	8
Other	3	0	0	0	0
TOTAL	100%	100%	100%	100%	100%

LEVEL OF SERVICE INTERPRETATION

The level of service ratings for intersection operation are summarized in Table B-3. General descriptions are provided along with locations in the San Francisco Central Business District which provide typical examples of each level of service rating during the PM peak period. Table B-4 provides general descriptions of service levels for transit carriers.

Table B-3
LEVEL OF SERVICE INTERPRETATION - INTERSECTIONS

Level of Service	Description	Average Vehicle Delay (Seconds)	Comparative SF CBD Locations During PM Peak (Existing Cconditions)
A	Free flow Insignificant delays.	0-16	Folsom & Beale
B	Stable operation. Minimal delays.	16-22	Howard & Beale
C	Stable operation. Acceptable delays.	22-28	Mission & Main Howard & Fremont
D	Queues develop but dissipate rapidly	28-35	Harrison & Fifth Mission & Fourth
E	Long queues develop upstream from intersections. Significant delays.	35-40	Mission & First
F	Forced flow, jammed conditions. Queues may block upstream intersections. Excessive delays.	40 or more	Harrison & First Brannan & Sixth

TABLE B-4 PASSENGER LEVELS OF SERVICE ON BUS TRANSIT

Level of Service	Description	Passengers per Seat
A	Level of Service A describes a condition of excellent passenger comfort. Passenger loadings are low with less than half the seats filled. There is little or no restriction on passenger maneuverability. Passenger loading times do not affect scheduled operation.	0.00-0.50
B	Level of Service B is in the range of passenger comfort with moderate passenger loadings. Passengers still have reasonable freedom of movement on the transit vehicle. Passenger loading times do not affect scheduled operations.	0.51-0.75
C	Level of Service C is still in the zone of passenger comfort, but loadings approach seated capacity and passenger maneuverability on the transit vehicle is beginning to be restricted. Relatively satisfactory operating schedules are still obtained as passenger loading times are not excessive.	0.76-1.00
D	Level of Service D approaches uncomfortable passenger conditions with tolerable numbers of standees. Passengers have restricted freedom to move about on the transit vehicle. Conditions can be tolerated for short periods of time. Passenger loadings begin to affect schedule adherence as the restricted freedom of movement for passengers requires longer loading times.	1.01-1.25
E	Level of Service E passenger loadings approach manufacturers' recommended maximums and passenger comfort is at low levels. Freedom to move about is substantially diminished. Passenger loading times increase as mobility of passengers on the transit vehicle decreases. Scheduled operation is difficult to maintain at this level. Bunching of buses tends to occur which can rapidly cause operations to deteriorate.	1.26-1.50
F	Level of Service F describes crush loadings. Passenger comfort and maneuverability is extremely poor. Crush loadings lead to deterioration of scheduled operations through substantially increased loading times.	1.51 1.60

SOURCE: Environmental Science Associates, Inc. from information in the Interim Materials on Highway Capacity, Transportation Research Circular 212, pp. 73-113, Transportation Research Board, 1980.

APPENDIX C

AIR QUALITY

SAN FRANCISCO AIR POLLUTANT SUMMARY 1979-1982[1]

POLLUTANT	FEDERAL STANDARD[2]	STATE STANDARD[3]	1979	1980	1981	1982
Carbon Monoxide (CO)						
1-hour average (ppm)	35	20				
Highest hourly average			20	10	8	—
No. of exceedances			0	0	0	0
8-hour average (ppm)	9	None				
Highest 8-hour average			13.8	7.5	5.3	9
No. of exceedances			1	0	0	1
Ozone (0_3)						
1-hour average (ppm)	.12[4]	.10				
Highest hourly average			0.08	0.09	0.07	.08
No. of exceedances			0	0	0	0
Nitrogen Dioxide (NO_2)						
1-hour average (ppm)	None	.25				
Highest hourly average			0.16	0.17	0.11	.13
No. of exceedances			4	0	0	0
Sulphur Dioxide ($S0_2$)						
24-hour average (ppm)	.14	.05				
Highest 24-hour average			0.034	0.018	0.016	.012
No. of exceedances			0	0	0	0
Total Suspended Particulate (TSP)						
24-hour average (ug/m^3)	260	100				
Highest 24-hour average			117	173	103	106
No. of exceedances			1	6	1	3

SAN FRANCISCO AIR POLLUTANT SUMMARY 1979-1982[1]

POLLUTANT	FEDERAL STANDARD[2]	STATE STANDARD[3]	1979	1980	1981	1982
Annual Geometric Mean (ug/m^3)[5]	None	60				
Annual Geometric Mean			42.0	52.1	56.0	57.0
Annual Exceedances			No	No	No	No
Lead						
3-month Average (mg/m^3)	1.5	None				
Highest 3-month average			0.95	0.53	0.35	—
No. of exceedances			0	0	0	---
1-month Average (mg/m^3)	None	1.5	—	—	—	—
No. of exceedances	—	—	—	—	—	—

[1]1979 data collected at 939 Ellis Street. 1980-81 data collected at 900 23rd Street.

[2]Federal standard is not to be exceeded more than once per year. Annual average standards are not be exceeded.

[3]State standards are not to be equalled or exceeded. The state 1-hour average CO standard was reduced from 40 ppm to 20 ppm in 1982.

[4]The federal standard is given in terms of Expected Annual Excesses which is based on a 3-year running average.

[5]The annual Geometric Mean is a single number which applies to an entire year of data. "No" indicates TSP concentrations did not exceed 60 (ug/m^3).

Note: ppm = parts per million
ug/mg^3 = micrograms per cubic meter
mg/m^3 = milligrams per cubic meter

Source: BAAMQD, Air Pollution in the Bay Area by Station and Contaminant, March issues, 1980-1983; and California Air Resources Board, California Air Quality Data, Annual Summaries, 1979-1982.